

THE IRON AGE

VOL. C

JULY—DECEMBER, 1917

NEW YORK:
IRON AGE PUBLISHING COMPANY,
239 West 39th Street

INDEX

Illustrated articles indicated by *

A

Abell-Howe Co.:
Corporation formed Aug 23 p 420
Expanding, Dec 20 p 1470

Abbott, R. R.:
Nickel in Steel Making, Sept 13 p 594

Abrogation of Contracts:
A Trade Commission for, Dec 13 p 1416
(Editorial), Nov 1 p 1070
Views of Producers and Consumers, Nov 8 p 1151; Nov 15 p 1198

Accidents:
Engineering Revision Lessens, Sept 13 p 601
Forming and Forging Machine Hazards, Dec 6 p 1350

Government Steel-Plant Statistics, Dec 5 p 1359
Investigation, Nov 15 p 1201
Sheet Mill Hazards, Dec 27 p 1547
Steel Plant Statistics, Oct 25 p 998

Acetylene and Electric Battery Companies, Merger Plan, Oct 4 p 851

Addy, Matthew, Co.:
Furnace Limestone Taken for Camp Roads, Nov 29 p 1325

Aeronautical Research Laboratory, July 12 p 83

Air Compressors:
Laidlaw-Dunn-Gordon Direct-Connected, *Nov 1 p 1051

Airplanes:
Appropriation for, July 19 p 131
Aviation Bill Passed, July 26 p 230a
Copper Tubes for, July 26 p 228
Engine Production May Exceed 40,000, Sept 20 p 684
France Aids, Aug 9 p 326
Government Aircraft Board, Oct 4 p 795

Government to Develop Standard Engine, July 5 p 29

Government to Finance Manufacturers, Aug 2 p 286
Makers Organize, Aug 9 p 347
Millions for, July 5 p 13

Navy's Factory, Aug 16 p 401
Progress in Manufacture, Oct 11 p 917

Standard Aero Corporation Buys Plant to Make, Aug 30 p 489
Steel for, Nov 15 p 1200
Supply Depot at Middletown, Pa., Aug 16 p 369

Use and Abuse of Steel for,* Aug 9 p 312
Use of Liberty Motor Limited, Nov 29 p 1331

Alexander, Magnus W.:
Cost of Health Supervision of Employees, Aug 30 p 492

Alien and Industrial Worker, Aug 23 p 430

Alison, J. Melville:
British Practice in Mill Rope Drives,* Nov 1 p 1064

Allen, Leslie H.:
Industrial Housing Problems,* Dec 27 p 1530

Allied Machinery Co. of America:
Changes in Personnel, Nov 22 p 1239

Alloys:
Aluminum, and Analysis, Sept 13 p 591
Castings That Withstand High Temperatures,* Aug 2 p 256

Chromium, Copper and Nickel, July 5 p 26
Copper and Aluminum for Bearings, Dec 20 p 1507
Electromagnetic, New, Dec 13 p 1429
Embargo on Automobile Steel, Nov 22 p 1271

Aluminum:
Alloys and Analysis, Sept. 13 p 591
And Copper Alloy for Bearings, Dec 20 p 1507
Electrolytic, and Carbon Consumption, July 12 p 111

Amalgamated Association:
Wages of Puddlers and Mill Workers Advanced, July 12 p 111

American Association for Labor Legislation:
To Discuss War Emergency Measures, Dec 20 p 1506

American Board of Scrap Iron Dealers:
Bureau in Operation, Nov 22 p 1253
Meeting, Nov 1 p 1051

American Boiler Manufacturers' Association:
Convention, July 5 p 16
War-Service Committee, Nov 8 p 1154

American Brake Shoe & Foundry Co.:
Annual Report, Dec 27 p 1563
Pays Dividend in Liberty Bonds, July 5 p 50

American Car & Foundry Co.:
Annual Report,* July 5 p 18
To Consolidate New York and St. Louis Offices, Aug 30 p 493

American Cast Iron Pipe Co.:
Complaint Against Cast-Pipe Freight Rate, Nov 1 p 1053

American Electrochemical Society:
Convention Program, Sept 27 p 777
Proceedings of Convention,* Oct 11 p 870

American Gear Manufacturers' Association:
Convention, Sept 20 p 668

American Institute of Metals:
Convention Papers, July 26 p 205
Convention Program, Sept 20 p 669
Proceedings of Convention, Sept 27 p 776; Oct 3 p 822

American Institute of Mining Engineers:
Convention, Oct 11 p 906
Meeting, New York Section, July 26 p 224

American International Corporation:
To Engage in Steel Exports, Sept 6 p 545
To Lay Keels Jan 1, Dec 20 p 1507

American Iron and Steel Institute:
Convention Papers, Oct 25 p 997
Convention Proceedings, Nov 1 p 1035
Extras on Steel, New Classification, Nov 1 p 1074
Fall Meeting Announcement, Aug 2 p 275; Oct 11 p 892
Membership Waiting List, July 5 p 29; Oct 4 p 795
Scrap Prices, New, Explained, Dec 27 p 1546
Steel Distribution Committee, Nov 15 p 1174
To Regulate Tin Imports, Nov 29 p 1336

American Locomotive Co.:
Annual Report, Aug 30 p 513

American Machine & Mfg. Co.:
Concrete Foundry Building,* Oct 4 p 806

American Machine Tool Engineering Works:
Lathe, 14-in.* Oct 25 p 991

American Manufacturers' Export Association:
Convention, Oct 18 p 965

American Optical Co.:
Handling Coal with Portable Truck Loader,* Nov 8 p 1171

American Pig Iron Storage Warrant Co.:
Cancels Last Warrant, Dec 13 p 1455

American Pulley Co.:
Split Steel Pulleys, Aug 30 p 522

American Rolling Mill Co.:
Bank for Employees, Nov 1 p 1048

American Shipbuilding Co.:
Report, Aug 23 p 452

American Society for Testing Materials:
Convention Proceedings, July 5 p 10

American Society of Mechanical Engineers:
Convention Program, Nov 29 p 1327
Proceedings of Convention, Dec 6 p 1375; Dec 13 pp 1424 and 1460

American Steel & Wire Co.:
Cleveland Plants Closed by Coal Scarcity, Dec 13 p 1453
Concrete Housing Development,* Oct 11 p 867

American Steel Foundries:
Earnings, Aug 9 p 342; Nov 22 p 1265

American U-Boat & Arms Corporation:
Shipyard of Hawkins & Miller Acquired, Aug 16 p 376

American Zinc Products Co.:
To Build Rolling Mill, Nov 29 p 1298

Ammunition, Defective, Sept 6 p 564

Analysis:
Aluminum and Its Alloys, Sept 13 p 591
Carbon by Color, Sept 20 p 712
Ferrosilicon, Dec 6 p 1358
Ferrosilicon Without a Platinum Crucible, Sept 13 p 589
Magnetic, of Steel Products,* July 12 p 74
Ore, July 12 p 85

Anti-Publicity Order, Dec 20 p 1503

Anti-Trust Suits to Be Pressed (Editorial), Oct 11 p 890

Arcade Malleable Iron Co.:
New Foundry,* Sept 20 p 646

Armor Plate, Heavy, Sept 13 p 626

Armor Plate Plant Will Probably Not Be Built, July 19 p 132; Aug 9 p 349

Armstrong-Blum Mfg. Co.:
Universal Metal Cutting Band Saw,* July 26 p 198

Armstrong, George W., & Co., Inc.:
Merger of Texas and Oklahoma Rolling Mills, July 5 p 35

Arny, Louis W.:
Leather Belting Makers' Association, Oct 18 p 928

Asbestos Cement Sheets Substitute for Corrugated Iron, July 26 p 221

Ash and Flue Dust Plant, Bennis Pneumatic, Nov 1 p 1061

Ashe, S. W.: Practical Welfare Work in Foundries,* Sept 20 p 666

Ashland Iron & Mining Co.: Improvements, Aug 9 p 308

Associated Employers of Indianapolis: Patriotic Address, Dec 27 p 1559

Association of Iron and Steel Electrical Engineers: Announcement of Convention, July 12 p 73

Convention Program, Aug. 30 p 522

Meeting Announcements, Oct 4 p 853

Pittsburgh-Cleveland Sections to Meet in Canton, Nov 22 p 1237

Association of Manufacturers of Chilled Carwheels: Annual Meeting, Oct 11 p 911

Australia: Fixing Metal Prices, Sept 20 p 711

Shipbuilding Industry Contemplated, Sept 13 p 632

Steel Industry, Oct 18 p 943

Steel Shortage, July 19 p 172

Austria-Hungary: Steel Output, 1916, July 5 p 15

Automobiles: Coal Gas as Fuel, Aug 23 p 423

Curtailment of Construction, Nov 8 p 1152

Detroit Movable Platform for Assembling Springs,* Oct 18 p 938

Embargo on Alloy Steel, Nov 22 p 1271

Exports (Editorial), Dec 20 p 1483

Manufacturers Co-operating with War Board, Nov 15 p 1199

Military Truck Tested, New, Oct 25 p 993

Truck Contracts for Government, Aug 9 p 321

Truck Supply Ample, July 5 p 21

Automotive Plants, Inventory of, July 19 p 167

Aviation: Bill Passed, July 26 p 230a

Call for Service, Nov 29 p 1336; Dec 13 p 1413

Supply Depot at Middletown, Pa., Aug 16 p 369

Axle Drilling Machine, Baker Double Spindle,* Aug 9 p 315

B

Babcock & Wilcox Co.: Traveling Cranes for Handling Shells,* Aug 23 p 426

Bagnall-Wild, R. K.: Use and Abuse of Steel for Aircraft, Aug 9 p 312

Baily Furnace Installations, Oct 18 p 938

Baker Brothers: Double Spindle Axle Drilling Machine,* Aug 9 p 315

Baldwin Locomotive Works: Increased Capital Demands (Editorial), Dec 6 p 1374

Baltimore Merchants' and Manufacturers' Association Organizing Industries for War Work,

Band Saw, Armstrong-Blum Universal Metal Cutting,* July 26 p 198

Bars: British Export and Controlled Prices for Steel, Sept 20 p 689

Rolled in Massachusetts Before 1800, Sept. 13 p 629

Bartlett, John H., Jr.: Use of Producer Gas Without Regenerators,* Aug 2 p 246

Battelle Furnace to Be Moved to India,* Aug 30 p 495

Bauxite, As a Refractory, Fused, July 12 p 82

Bearings, Casting, Oct 18 p 932

Becket, Frederick M.: Electromagnetic Alloy, Dec 13 p 1429

Belgium: Cockerill and Other Steel Plants Dismantled, Dec 13 p 1460

Railroads in, Aug 16 p 383

Bell, M. L.: Silica Brick Requirements, Sept 6 p 533

Belts: Horse Power Pull, Sept 6 p 541

Leather Specifications, Dec 6 p 1351

Bender, G. P.: Accident Hazards of Forming and Forging Machines, Dec 6 p 1350

Progress in Making Parts of Steel Cars, Dec 6 p 1360

Bending Machines: Watson-Stillman,* July 5 p 19

Bennis, Ed., & Co., Ltd.: Pneumatic Ash and Flue Dust Plant, Nov 1 p 1061

Benoist Aeroplane Co.: Organized, Aug 23 p 458

Benzol: British Restrictions, Sept 20 p 655

Market, Aug 2 p 247; Sept 27 p 755

Besly, Charles H., & Co.: Spindle for Disk Grinding Machines, Oct 18 p 933

Bessemer Process, Roll Scale in, July 12 p 80

Bethlehem Shipbuilding Co.: New Organization, Oct 18 p 958

Bethlehem Steel Co.: All Furnaces in Blast, July 12 p 111

Financing Plan, Aug 30 p 514

First Aid Work, Nov 29 p 1288

To Build More Open-Hearth Furnaces, Sept 27 p 730

Bethlehem Steel Corporation: Court Litigations, July 19 p 147

Need Not Show Books, Nov 15 p 1192

To Issue New Stock, Sept 20 p 716

Betts Machine Co.: Sold, Nov 8 p 1157

Bicknell-Thomas Co.: Indicator for Lead on Screw Threads,* July 5 p 19

Bierbaum, Christopher H.: Graphite Lubrication,* Sept 13 p 596

Billets: Agreed Prices, Oct 18 p 944; Oct 25 p 1026

Forging Specifications, July 5 p 11

Freight Rate Advance, Aug 30 p 522

Birch, E. W.: Use and Abuse of Steel for Aircraft,* Aug 9 p 312

Blowers: Diamond Soot for Army Cantonment in France, Nov 15 p 1193

Boiler Manufacturers: (See American Boiler Manufacturers' Association)

Boilers: Changes in Plate Specifications, July 12 p 79

Economy Firing Door for,* Aug 2 p 263

Economy with Peat, Aug 16 p 405

Failure of Plates in,* Oct 25 p 994

First Heine Still Fit, Oct 25 p 992

For Gas-Fuel Economy, Sept 6 p 534

Fuel Economies in the Boiler Room, Dec 27 p 1538

Specifications for Tubes and Pipes, July 5 p 12

Utilizing Waste Heat for Melting Furnaces,* Oct 25 p 985

War Service Committee of Manufacturers, Nov 8 p 1154

Bolt and Nut Manufacturers Announce Meeting, Nov 8 p 1157

Bolt, Washer and Locknut Combination, Permanent Products Co.,* Dec 13 p 1413

Bon Air Coal & Iron Co.: Bought by New York Interests, Aug 9 p 319

Bon Air Coal & Iron Corporation: Organization, Aug 9 p 319

Book Reviews: Application of Efficiency Principles, Nov 29 p 1334

Blast Furnace Construction in America, Nov 15 p 1226a

Compressed Air for the Metal Worker, Oct 11 p 909

Design of Machine Elements, Nov 29 p 1334

Effect of Wars and Revolutions on Government Securities, July 5 p 54

Electric Furnaces in Iron and Steel Industry, Nov 29 p 1334

English and American Tool Builders, Aug 23 p 456

Fourth National Forum Trade Convention, Aug 23 p 457

Handbook for Machine Designers, Shop Men and Draftsmen, Aug 23 p 456

Hendricks' Commercial Register of the United States, Nov 15 p 1226a

Iron Ores of Lake Superior, Aug 23 p 457

Modern Machine Shop Construction, Equipment and Management, Sept 6 p 572

Office Organization and Management, Aug 2 p 255

Organization and Accident Prevention, Aug 23 p 456

Poor's Intermediate Manual of Railroads, Nov 15 p 1226a

Poor's Manual of Industrials for 1917, Aug 23 p 457

Poor's Manual of Public Utilities, July 5 p 54

Trade Acceptances, Nov 15 p 1226a

Unwritten History of Braddock's Field, Sept 6 p 572

Booth-Hall Electric Furnaces: Installations, Aug 30 p 519; Oct 18 p 963

Borings: Separating Fine Gun and White Metal, July 19 p 125

Boron, Case-Hardening by,* July 5 p 15

Bounties, Canadian, July 5 p 13

Brake, Cutler-Hammer Motor-Operated Clasp,* Nov 1 p 1055

Brass: Defects in Tubes,* Aug 2 p 259

Electric Melting, July 5 p 29; Oct 11 p 872

Flux to Reduce Silicates, Oct 18 p 927

Germany's Supply, July 12 p 105

Inspection, Sept 6 p 540

Light versus Heavy Reductions in Cold Working, Aug 9 p 318

Nitre Cake for Pickling, Oct 25 p 991

Properties, Nov 1 p 1054

Reclaiming Troubles, Oct 18 p 933

Brass Manufacturers: (See National Association of Brass Manufacturers)

Brazil: First Steel Output, Oct 25 p 1004; Dec 6 p 1361

Iron Ore, Nov 22 p 1237

Manganese Ore Exports, Nov 22 p 1264

New American Co. Shipping Manganese Ore, Aug 23 p 458

Zircon, Aug 23 p 453

Breaker Island Furnaces Moved,* Aug 30 p 495

Breitung Iron Co.: Ore Properties, Sept 6 p 563

Brewster, William, & Co.: Device for Marking Steel Tools,* Aug 23 p 421

Brick: Plant Tests for Refractory, Nov 29 p 1293

Requirements of Silica, Sept 6 p 533

Bridge Builders and Structural Society:
Fabricated Business, Aug 16 p 384;
Sept 20 p 711; Oct 18 p 965;
Nov 22 p 1233; Dec 20 p 1507
War Service Committee, Nov 8 p 1170

Bridgeport Projectile Co.:
Purchased by Liberty Ordnance Co.,
Oct 25 p 1001

Bridges:
Quebec Completed, Sept 27 p 770

Brier Hill Steel Co.:
Subsidiary Elections, July 5 p 51

Briquettes:
Cast-Iron, Dec 6 p 1397
Machine for Making Metal, Sept 20 p 711

British Forgings, Ltd.:
Begins Operations, July 19 p 131

Bronn, J. I.:
Deoxidizing Basic with a Saving of Manganese, Nov 29 p 1294

Bronze:
Inspection, Sept 6 p 540

Brosius, E. E.:
Single Hoist Grab Bucket,* Aug 9 p 319

Brown Instrument Co.:
Pyrometers for Automatic Control of Temperature,* Dec 20 p 147d

Brown, R. C.:
Industrial Workers and Medical Inspection, July 19 p 144

Brown, R. P.:
Automatic Control of High Temperature,* Dec 20 p 1478

Browning Machine Guns, Government to Buy, July 26 p 217

Bucher, John E.:
Atmospheric Nitrogen, Process for Fixation, July 26 p 221

Buck, E. C.:
Bibliography on Hydraulic Forging Presses, Dec 20 p 1480

Plastic Metal Deformation, Nov 1 p 1066

Bucket, Single Hoist Grab,* Aug 9 p 319

Buckeye Steel Castings Co.:
To Forge Guns, Aug 23 p 426

Buckeye Tool & Machine Co.:
Vertical Drilling Machine, 26-in.,* Dec 6 p 1367

Building, Plan to Stimulate Construction, Sept 27 p 739

Bureau of Foreign and Domestic Commerce:
Branch Offices for Licensing Exports, Aug 16 p 384

Pratt, Dr. E. E., Resigns, July 19 p 147

Bureau of Manufacturing Industries to Be Organized for War Work, Nov 22 p 1231

Bureau of Mines:
Iron Industry, General History and Evolution, Nov 15 p 1194

Burroughs Adding Machine Co.:
Women Replace Men in Inspection Department, Dec 20 p 1477

Burrows, Dr. Charles W.:
Magnetic Analysis of Steel Products,* July 12 p 75

Business:
After Peace (Editorial) Sept 13 p 608
Situation (Editorial) Nov 8 p 1131

Butler, Joseph G., Jr.:
Loses Art Collection, Dec 20 p 1504

Fifty Years of Iron and Steel, Nov 1 p 1041

C
Calculating Machine, Marchant, Aug 30 p 522

Calling and Fire Alarm Systems, Standard Co.'s Factory*, Nov 1 p 1063

Cambria Steel Co.:
Blast Furnace Completed in 57 Days, July 12 p 111; July 26 p 189

Worked Stopped on Plate Mill, July 19 p 146

Cammen, Leon:
Drying Blast Furnace Air by Calcium Chloride Brine,* Dec 14 p 1429

Canada:
Activity in Metal-Working Lines, Dec 13 p 1458

Bounties, July 5 p 13

British Forgings, Ltd., Begins Operations, July 19 p 131

Demurrage Rules, Aug 16 p 368

Dominion Steel Corporation's June Production, July 19 p 127

Electric Steel in, Sept 20 p 662

Import Trade with United States, Aug 16 p 370

Iron and Steel Production, First Half 1917, Oct 4 p 801

Munitions Buying, July 5 p 19

Munitions Manufacture Lessening, Sept 13 p 607

Our Trade with, Sept 13 p 632

Renewed Activity at Ojibway, Sept 20 p 681; Oct 11 p 882

Quebec Bridge Completed, Sept 27 p 770

Shipbuilding Activity, July 5 p 17; Aug 23 p 428; Sept 13 p 611

United States Embargo Causes Serious Situation, Oct 4 p 812; Oct 11 p 887

Canadian Locomotive Co.:
Annual Report, Sept 20 p 716

Canadian Steel Corporation:
Awards Contracts for Wharves at Ojibway, Oct 11 p 882

Canonsburg Iron & Steel Works:
Acquired by E. W. Edwards, Dec 6 p 1400

Canter Sheet Steel Co.:
Absorbed by Hydraulic Pressed Steel Co., Oct 25 p 1018

Purchased by Philadelphia Interests, Aug 23 p 458

Canontonents:
Government Rapidly Building, July 19 p 137

Trussed Concrete Steel Co. to Furnish Buildings, July 5 p 21

Caracristi, V. Z.:
Pulverized Fuel for Metal Furnaces, Sept 27 p 727

Carbohydrates as Steel Deoxidizer, Nov 1 p 1062

Carbon:
Analysis by Color, Sept 20 p 712

Hardening and Special Steels, Oct 4 p 808

Carbon Steel Co.:
Annual Meeting, Nov 15 p 1223

Annual Report, Nov 8 p 1127

Defends Action in Paying Bonuses, Nov 8 p 1153

Carnahan Tin Plate & Sheet Co.:
Maskrey Pickling Machine, Motor-Driven Vertical,* Nov 15 p 1187

Carnegie Steel Co.:
Coke Breeze Recovery at Skip Hoists,* Aug 30 p 475

Largest Heroult Electric Furnace, Oct 11 p 873

Liberty Mill Started, Oct 25 p 1022; Nov 1 p 1048

McDonald Mill Started, Oct 25 p 1006

Shape Book, New, Nov 1 p 1052

Carnegie Veterans' Association:
Annual Dinner, Dec 13 p 1452

Cars:
Building (Editorial), Dec 27 p 1544

Easton Dump,* Aug 30 p 481

Government Limits Use of, Nov 1 p 1056

Progress in Making Parts of Steel, Dec 6 p 1360

Pugh Hot Metal,* Dec 6 p 1361

Purchases of, Nov 15 p 1226

Purchases of, for France, Aug 16 p 383

Serious Shortage in the Northwest, Nov 29 p 1333

Service Division, July 19 p 139

For United States Government Railroad in France, Aug 23 p 462

Carwheel Manufacturers:
(See Association of Manufacturers of Chilled Carwheels)

Case Hardening by Boron,* July 5 p 15

Cast Iron:
Briquettes of, Dec 6 p 1397

Cement Joints for Water Mains, Aug 9 p 318

Effect of Various Elements on the Strength of, Aug 2 p 261

High Sulphur, Dec 6 p 1366

Improving with Uranium, Dec 13 p 1413

Oxy-Acetylene Welds, Dec 27 p 1538

Shells in Permanent Molds,* Oct 25 p 988

Structure in Metal Molds,* Sept 20 p 656

French Method of Tinning Utensils, July 26 p 221

Castings:
Alloy That Withstands High Temperatures,* Aug 2 p 256

Copper, for Electrical Use, Oct 11 p 872

Doehler Plant for Large Output,* Oct 18 p 923

Iron, Discussion at Foundrymen's Convention, Oct 4 p 815

Navy Specifications for Steel, July 12 p 83

Steel, Discussion at Foundrymen's Convention, Oct 3 p 816

Steel, Fixed Prices, Dec 27 pp 1542 and 1564

Sulphur in Steel (Editorial), July 12 p 90

Welded Steel Ship Sections, July 26 p 230b; Aug 9 p 348

Westinghouse Steel Motor Frames for Battleship Turbines,* Dec 6 p 1365

Catchings, Waddill:
Calls War Industries Board Inadequate, Sept 20 p 715

Central Steel Co.:
Extensions, Oct 25 p 987

Caterpillar Tractor, Cleveland Small Industrial*, July 26 p 193

Cement:
Amalgam for Firebricks, Oct 4 p 803

For High Temperature Furnaces, Nov 8 p 1126

Joints for Cast-Iron Water Mains, Aug 9 p 318

Cementation by Gas Under Pressure, July 19 p 147

Central Station and the Electric Furnace, Dec 6 p 1356

Centrifugal Cast-Iron Pipe,* Nov 29 p 1299

Chain and Crane Practice, Dec 27 p 1539

Chain Companies Consolidate, Nov 1 p 1095; Dec 6 p 1357

Chamber of Commerce of the U. S.:
Asks for Central Control of Purchases, Oct 11 p 869

Convention, Sept 27 p 773

Misrepresentation of, July 5 p 13

War Problems Discussed by, Dec 20 p 1509

Chamberlain, A. H.:
Jobbers' Status, Oct 4 p 854

Chambersburg Engineering Co.:
Double - Acting Steam Forging Hammer,* Sept 13 p 600

Champion Crane Co.:
Traveling Cranes,* July 12 p 72

Chaney, Lucian W.:
Engineering Revision Lessens Accidents, Sept 13 p 601

Charcoal Iron Co. of America:
Gogebic Ore Contracts, Aug 30 p 519

Charleston Steel Co.:
Refining Hot Metal in Electric Furnaces, July 5 p 18

Chemical and Dye Companies Amalgamate, July 5 p 26

Chemists:
To Act as Advisory Board, Nov 22 p 1253

Union of British Steel, Nov 29 p 1293

Chester Shipbuilding Co.:
Reorganized, Aug 16 p 375

Chicago Bridge & Iron Co.:
Fabrication in Transit, Oct 4 p 807

Chicago Machinery and Supply Men's Outing, Aug 30 p 522

Chicago Machinery Club:
Leases Quarters, Aug 2 p 238

Chickasaw Shipbuilding Co.:
Steel Corporation's Shipbuilding Plant at Mobile, Nov 29 p 1333

Chilled Iron Wheel, Mechanics of, July 19 p 140

Chimney, World's Tallest Erected in Japan, July 5 p 14

China:
Enterprise to Be Aided by Japan, Oct 25 p 997

Chisholm-Moore Mfg. Co.:
Handling Refuse of a Foundry,* Nov 15 p 1173

Chrome:
British Ore Restrictions, Sept 20 p 655

Ore Shipments from California, Sept 27 p 781

United States Ore Production, 1916, Sept 13 p 603

Vanadium in Steel, Aug 2 p 266

Chromium:
Copper and Nickel Alloys, July 5 p 26

Present Status, Nov 29 p 1328

Chuck, Heald Magnetic with Rectangular Top,* Dec 20 p 1475

Cincinnati Bickford Tool Co.:
Motor-Driven Radial Drilling Machines,* Oct 4 p 799

Cincinnati Lathe & Tool Co.:
Heavy Duty Lathe for Shell Production,* Aug 2 p 255

Cincinnati Planer Co.:
Group Insurance and Labor Turnover, Dec 6 p 1398

Cincinnati Specialty Mfg. Co.:
Automatic Drop Light Extension Reel,* Dec 27 p 1539

Clarke, R. R.:
Casting Bearings, Oct 18 p 932

Cleveland:
Plants Idle on Account of Shortage of Coal, Dec 20 p 1508

Cleveland Brass & Copper Mills, Inc.:
Reorganizes Sale Department, Oct 4 p 801

Cleveland Crane & Engineering Co.:
Annual Bonus Plan, Dec 27 p 1562

Cleveland Co-operative Stove Co.:
Stove Plate Foundry,* July 19 p 121

Cleveland Machine Tool Works:
Taken Over by Cleveland Milling Machine Co., Sept 13 p 593

Cleveland Milling Machine Co.:
Plain Vise for Milling Machines.* Dec 6 p 1353

Takes Over Cleveland Machine Tool Works, Sept 13 p 593

Cleveland Tractor Co.:
Caterpillar Tractor, Small Industrial, July 26 p 193

New Tractor,* Sept 13 p 589

Tractor to Eliminate Switch Engine,* Dec 20 p 1475

Closed Shop, Peril of, Nov 29 p 1292

Coal:
Air-Carried Powdered Plant of Standard Tin Plate Co.,* Sept 27 p 742

Bituminous Advanced, Nov 1 p 1095

Coke Oven Gas and British Fuel Problem, July 26 p 189

Coking Value of Illinois, Aug 23 p 458

Committee of Railroad Experts to Relieve Situation, Dec 6 p 1401

Conservation (Editorial), Dec 20 p 1483

Deterioration from Storage, Dec 6 p 1350

Distribution Order, Government Issues, Oct 18 p 927

Economies in the Boiler Room, Dec 27 p 1538

Exports to Canada Restricted, Nov 1 p 1104

Famine May Be More Acute (Editorial), Dec 27 p 1545

Fuel Problems, Government Solving, Oct 25 p 1025

Handling with Portable Truck Loader,* Nov 8 p 1171

Jobbers' Regulations, Oct 11 p 911

Magnetic Separator in Pulverizing Plant, Nov 1 p 1062

Manufacturers Sell to Employees, Dec 6 p 1393

New England Shortage, Dec 20 p 1509

Output, United States, 1916, Aug 16 p 376

Powdered for Malleable Iron Melting, Dec 20 p 1498

Prices Fixed by Government, Aug 23 p 461

Prices, Government Controversy Over, July 5 p 33

Production Increased, Oct 18 p 970

Pulverized Fuel for Metal Furnaces, Sept 27 p 727

Pulverized to Replace Natural Gas, Dec 27 p 1560

Serious Shortage in Cleveland, Sept 27 p 743; Dec 20 p 1508

Shipments to Be Pooled, July 19 p 141

Shortage at Baltimore, Dec 20 p 1507

Suggestions for Conserving, Nov 15 p 1192

Supply Situation Critical, Nov 22 p 1252

Wasted in Boiler Room, Dec 20 p 1480

Coes, H. V.:
Price Fixing by Edict or Agreement? Oct 11 p 868

Coke:
A Dominant Factor (Editorial) Oct 4 p 829

Breeze Recovery at Skip Hoists, Edgar Thomson Works,* Aug 30 p 475

British Problem of Oven Gas and Fuel, July 26 p 189

By-Products Ovens in United States, Oct 4 p 852

Determining Moisture in, July 26 p 193

Government May Seize Plants, Nov 15 p 1226

Maximum Prices in Italy, Sept 13 p 626

Prices, Agreed, Sept 27 p 756; Nov 22 p 1273

Prices of By-Product in Chicago District, Nov 29 p 1322

St. Louis Coke & Chemical Co. to Build Plant, Nov 15 p 1218

Warning to Producers on Overcharge, Dec 6 p 1393

Wilputte Ovens, Aug 16 p 371

Coking Value of Illinois Coals, Aug 23 p 458

Coleman-Shoemaker-Mead, Inc.:
To Suspend Business, Sept 27 p 781

Colorado Fuel & Iron Co.:
Annual Report, Oct 11 p 906

Wage Increases, Aug 30 p 494

Vindicated Against Claims of United Mine Workers of America, (Editorial), Dec 20 p 1482

Colt's Patent Fire Arms Co.:
Sawtooth Roof for Plant,* Aug 9 p 320

Columbia Machine Tool Co.:
Flush Column Shaping Machine,* Aug 2 p 243

Columbus-McKinnon Chain Co.:
Chain Companies' Consolidation, Nov 1 p 1095; Dec 6 p 1357

Committees, Plague of, Dec 27 p 1537

Compania Siderurgica del Mediterraneo:
Organized, Aug 16 p 385

Compensation:
Wisconsin's Law, Sept 13 p 607

Competitive Education Between Nations, Oct 25 p 984

Cone Automatic Machine Co.:
Four-Spindle Automatic Screw Machine,* Oct 25 p 986

Cone, Edwin F.:
High Grade Pig Iron from Scrap Steel,* Aug 30 p 485

Structure of Iron Cast in Metal Molds,* Sept 20 p 656

Congress Postpones Important Measures, Oct 11 p 892

Connecticut Brass & Mfg. Corporation:
Merger of Pilling Brass and Connecticut Brass Companies, Nov 15 p 1187

Continental Can Co.:
Increases Capital, July 5 p 50

Contracts:
Abrogation of (Editorial), Nov 1 p 1070

Abrogation, Views of Producers and Consumers, Nov 8 p 1151; Nov 15 p 1198

And Fixed Prices (Editorial), Oct 11 p 888

Limitations Imposed on Advisory Committeemen, Oct 4 pp 833 and 854

Trade Commission for Abrogation, Dec 13 p 1416

Controller for Hoisting Engines, Maritime,* Nov. 1 p 1057

Conventions:
American Boiler Manufacturers' Association, July 5 p 16

American Electrochemical Association,* Oct 11 p 870

American Foundrymen's Association, Sept 27 p 776; Oct 1 p 813

American Gear Manufacturers' Association, Sept 20 p 668

American Institute of Metals, Sept 27 p 776; Oct 3 p 822

American Institute of Mining Engineers, Oct 11 p 906

American Iron and Steel Institute, Nov 1 p 1035

American Manufacturers' Export Association, Oct 18 p 965

American Society for Testing Materials, July 5 p 10

American Society of Mechanical Engineers, Dec 6 p 1375; Dec 13 pp 1424 and 1460

And War (Editorial), Oct 11 p 890

Association of Manufacturers of Chilled Carwheels, Oct 11 p 911

Chamber of Commerce of the United States, Sept 27 p 773

National Association of Purchasing Agents, Oct 11 p 911

National Founders' Association, Nov 15 p 1195; Nov 22 p 1242

National Implement and Vehicle Association, Oct 25 p 996

National Machine Tool Builders' Association, Nov 1 p 1092; Nov 8 pp 1140 and 1167

National Safety Council, Sept 13 p 613; Sept 20 p 690

National Smoke Prevention Association, Oct 4 p 851

National Supply and Machinery Dealers' Association, Nov 8 p 1124

Converter Explosions in German Steel Foundries, Sept 6 p 583

Conveying-Machinery Parts, Jeffrey Stock List, Dec 27 p 1538

Conveyors:

- Hagan Steam-Jet Ash,* Dec 13 p 1457
- Portable Motor-Driven Scoop,* Nov 29 p 1295

Co-operation:

- No Transient Phase (Editorial), Nov 29 p 1305
- Some Results (Editorial), July 26 p 202

Cooling Shell Forgings,* Sept 13, p 597

Cooper, F. E.:

- Planning Department in Modern Shops,* Sept 6 pp 537 and 584

Copper:

- And Aluminum Alloy for Bearings, Dec 20 p 1507
- British Needs, July 5 p 21
- Castings for Electrical Use, Oct 11 p 872
- Chromium and Nickel Alloys, July 5 p 26
- Exports, Five Months, 1917, July 19 p 146
- Germany's Supply, July 12 p 105; Oct 11 p 909
- Government Purchase, July 5 p 57
- Industry, 1916, Dec 6 p 1371
- Japan's Output, 1916, July 26 p 230c
- Miners Agree to Arbitrate, Oct 18 p 932
- Miners' Strikes, July 5 p 57
- Prices, Agreed, Sept 27 p 756
- Trade, First Half 1917, Aug 16 p 363
- Tubes for Airplanes, July 26 p 228
- World's Production, 1916, July 26 p 199

Cores:

- Economical Production of Small,* Oct 11 p 878
- Electric Ovens for Baking,* Sept 20 p 652

Correspondence, Discussion for Improving, Oct 25 p 992

Corrigan, McKinney & Co.:

- Steel Plant,* Nov 15 p 1180

Corrosion:

- Of Fence Wire, Dec 13 p 1449
- Pipe, in Buildings, Nov 29 p 1298

Cost Finding Not the Way (Editorial), Aug 16 p 380

Cost-Plus System Severely Criticized, Government, Sept 27 p 728

Costs:

- Confusion on (Editorial), Oct 11 p 889
- Cutting Cupola Charging,* Dec 13 p 1411
- Health Supervision of Employees, Aug 30 p 492
- Power for Steel Plants, Sept 27 p 775
- Start Made on Standard Foundry System, Oct 4 p 814
- Steel Investigation, July 5 p 51

Coulson, John:

- Effect of Pickling on Strength of Steel, Oct 18 p 964

Council of National Defense:

- Duties of Director of Steel Supply, Nov 22 p 1245
- Industrial Organization Reviewed, Aug 23 p 419

New Office Building, Nov 8 p 1119

Trade Committees Dissolved, Dec 13 p 1437

War Industries Board New Buyer, Aug 2 p 274

Covington Multiple Drill Co.:

- Six-Spindle Head for Drilling Machines,* Oct 11 p 873

Cranes:

- Babcock & Wilcox Traveling,* Aug 26 p 426
- Champion Traveling,* July 12 p 72
- Safe Loads of Chains and Slings,* Nov 22 p 1238

Wellman-Seaver-Morgan for Norfolk Navy Yard,* Sept 27 p 734

Cranes:

- Chain Practice and, Dec 27 p 1539
- Equipment and Operation of Traveling, Dec 27 p 1527
- Pawling & Harnischfeger, for Flexible Loads,* Dec 20 p 1471

Crawford, Joseph, Jr., Co.:

- Lathe for Toolrooms, 15-in.* Nov 29 p 1293

Cripples, How to Prepare Soldiers for Industry,* Oct 25 p 981

Crocker-Wheeler Co.:

- Induction Motor, Small Squirrel Cage,* Oct 11 p 869
- Motor-Generator Set with Two Bearings,* Sept 27 p 739
- Reversing Alternating Current Switch,* Aug 16 p 377

Cromwell Steel Co.:

- McMurray, Max, President,* Sept 30 p 681
- Steel Plant Starts, Aug 23 p 457

Crosby, Edwin L.:

- Electric Furnace and Central Station, Dec 6 p 1356

Crowell, Major Benedict:

- Assistant Secretary of War,* Nov 15 p 1220

Crozier, Major-Gen. William:

- Progress in Supplying Ordnance, Dec 20 pp 1471 and 1510

Crucible Steel Co. of America:

- Annual Report, Nov 15 p 1215
- Officers, Nov 22 p 1253
- Wharton, Oden H., President,* July 5 p 52

Crucibles, Lava Design, July 5 p 51

Cunningham, Wilfred H.:

- President Lake Superior Corporation,* Sept 6 p 568

Curtis & Co. Mfg. Co.:

- Forging Shells,* July 5 p 1; July 26 p 183

Curtiss Aeroplane & Motor Corporation:

- To Build Plant, July 26, p 217

Custer, Edgar A.:

- Cast-Iron Shells in Permanent Molds,* Oct 25 p 988

Cutler, Burwell S.:

- Chief of Bureau of Foreign and Domestic Commerce, Oct 11 p 877

Cutler-Hammer Mfg. Co.:

- Motor-Operated Clasp Brake,* Nov 1 p 1055
- Squirrel Cage Motor-Starting Switch,* Dec 20 p 1477

Cutting-Off Machine:

- Gorton Internal Bar, Nov 8 p 1113

D

Daniels, Secretary of the Navy:

- Shipbuilding Progress, Dec 27 p 1565

Danville Malleable Iron Co.:

- Boilers for Utilizing Waste Heat from Melting Furnaces,* Oct 25 p 985

Davis-Bournonville Co.:

- Expansion, Nov 1 p 1063

Davis, J. C.:

- Ladle for Steel Foundries, Self-Skimming,* July 12 p 69

Davis Machine Tool Co.:

- Toolroom Lathe, 12-in.,* Aug 2 p 251

Daylight Saving Bill Passes Senate, July 5 p 57

De Long, B. H.:

- High-Speed Steel, Sept 20 p 655

Decatur Foundry Co.:

- Taken Over by Wagner Castings Co., Nov 8 p 1153

Decisions, Judicial:

- Affecting Dealers and Manufacturers, Dec 6 p 1396
- Legal Aspects of Transportation, Sept 6 p 569

Relating to Sales, July 12 p 109

Sales Contracts, Sept 27 p 782

Workmen's Rights, Aug 2 p 264

Definitions for Materials (Editorial), Oct 25 p 1002

Deliveries, Regulation of Steel (Editorial), July 5 p 31

Delta Chemical Co.:

- Bought Stephenson Blast Furnace, Aug 9 p 347

Demurrage, Rules in Canada Revised, Aug 16 p 368

Deoxidizer, Carbohydrates as Steel, Nov 1 p 1062

Deoxidizing Basic Steel with a Saving of Manganese, Nov 29 p 1294

Derby, Rodney:

- Simple System of Foundry Accounting,* Sept 20 p 682

Detroit Furnace Co.:

- Acquired by Detroit Iron & Steel Co., July 19 p 171

Detroit Iron & Steel Co.:

- Acquires Detroit Furnace Co., July 19 p 171

Detroit Shell Co.:

- Organized, Dec 20 p 1503

Detroit Steel Products Co.:

- Movable Platform for Assembling Springs,* Oct 18 p 938

Detroit Tool Co.:

- Automatic Machine for $\frac{3}{4}$ -in. Pins,* July 19 p 131
- Sensitive Drilling Machine,* Nov 1 p 1061

Diamond Chain Co.:

- Purchased by Rowe Calk Co., July 12 p 106

Diamond Power Specialty Co.:

- Soot Blowers for Army Cantonment in France, Nov 15 p 1193

Dictatorship Not Likely, Iron and Steel, July 12 p 90

Die Cushion for Presses, Strand Pneumatic,* Aug 2 p 268

Diesel Engine, Fulton, Aug 9 p 308

Differentials and Extras:

- See Prices on Iron Ore, Coke, Pig Iron, Finished Materials, Semi-Finished Materials, Billets, Cast-Iron Pipe, Steel Castings, Scrap, Tin Plate, Warehouse, Copper

Dinkey, Alva C.:

- President Midvale Steel & Ordnance Co., Nov 15 p 1187

Dirigo:

- Copper and Aluminum Alloy for Bearings, Dec 20 p 1507

Dividends, Shop, Due to Personnel Work,* Nov 1 p 1058

Dixie Steel Corporation:

- To Build Rolling Mill in New Orleans, July 19 p 170

Doehler Die-Casting Co.:

- Die Castings Plant,* Oct 18 p 923

Dominion Steel Corporation:

- June Production, July 19 p 127

Draft in Munitions Centers (Editorial) Aug 9 p 324

Dress, George W.:

- Results of Rolling from Green Ingots,* Sept 6 p 529
- Transverse Tests and Steel Structures,* Aug 2 p 240

Drew, Walter:

- Closed or Open Shop? Oct 11 p 916
- Peril of Closed Shop, Nov 29 p 1292

Drilling Machines:

- Baker Double Spindle Axle,* Aug 9 p 315
- Buckeye 26-in. Vertical,* Dec 6 p 1367
- Cincinnati Bickford Motor-Driven Radial,* Oct 4 p 799
- Covington Six-Spindle Head for,* Oct 11 p 873

Detroit Sensitive,* Nov 1 p 1061

Difference in High-Speed,* Dec 6 p 1398

Harris Offset Attachments for, Aug 23 p 423

Moline Milling and,* Nov 29 p 1297

Morris Tilting Table for Radial,* Dec 6 p 1355

Shortage for Oil Well Operations, Aug 30 p 489
 Silver Vertical, Aug 23 p 429
 Simmons Floor Tapping and, Oct 25 p 990
 Stecher, for Recoil Cylinders,* Sept 13 p 595
 W. W. Machine Works,* Aug 2 p 254
 Waukegan Floor,* Sept 27 p 739
 Weigel Upright,* Oct 4 p 805
 Driver-Harris Co.:
 Alloy Castings That Withstand High Temperature,* Aug 2 p 256
 Drop Light Extension Reel, Cincinnati Automatic,* Dec 27 p 1539
 Dunbar, W. B.:
 Variable Speed Pulley,* Sept 6 p 535
 Dunphy, J. W.:
 Cooling Shell Forgings,* Sept 13 p 597

E

Eastern Trading Co.:
 Quoting for Business in the Far East, Dec 27 p 1541
 Easton Car & Construction Co.:
 Dump Car,* Aug 30 p 481
 Ebbw Vale Steel, Iron & Coal Co.:
 Plant to Be Extended, Oct 18 p 963
 Eberhardt, Henry E.:
 Method for Producing Spur Gears, Nov 29 p 1295
 Economics:
 After Effects of War (Editorial), Aug 2 p 271
 From Motor-Driven Mills,* Sept 13 p 592
 Economy Furnace Appliance Co.:
 Firing Door for Boilers,* Aug 2 p 263
 Edgewater Steel Co.:
 Additions, July 5 p 21
 Editorials:
 Abrogation of Contracts, Nov 1 p 1070
 After Effects of War Economies, Aug 2 p 271
 Allocation and Dilution of Labor, Oct 25 p 1003
 Anti-Trust Suits to Be Pressed, Oct 11 p 890
 Bonds, Taxes and Prices, Sept 20 p 686
 British Check on Electric Steel, Sept 27 p 754
 British Steel for Shells, Oct 18 p 942
 Business After Peace, Sept 13 p 608
 Business Situation, Nov 8 p 1131
 Car and Locomotive Building, Dec 27 p 1544
 Coal Famine May Be More Acute, Dec 27 p 1545
 Coke a Dominant Factor, Oct 4 p 829
 Colorado Fuel & Iron Co. Vindicated, Dec 20 p 1482
 Commandeering Machinery for War, Aug 9 p 325
 Confusion on Costs, Oct 11 p 889
 Conservation of Coal, Dec 20 p 1483
 Contracts and Fixed Prices, Oct 11 p 888
 Conventions and the War, Oct 11 p 890
 Co-operation in Manganese Problem, Nov 8 p 1132
 Co-operation No Transient Phase, Nov 29 p 1305
 Cost Finding Not the Way, Aug 16 p 380
 Country's War Organization, Dec 13 p 1432
 Danger in Profit Paring, Aug 30 p 496
 Definitions for Materials, Oct 25 p 1002
 Destroyers or Shipping? Sept 6 p 547
 Draft in Munitions Centers, Aug 9 p 324
 Eastern Railroad Pool, Dec 6 p 1373
 Eliminating the Unessentials, Nov 8 p 1130

Embargo on Exports, July 12 p 88
 Embargo on Steel, Dec 6 p 1395
 Excess Profits Taxes on Steel, Aug 9 p 325
 Exemptions Needed for War Deliveries, Sept 27 p 754
 Exports of Automobiles, Dec 20 p 1483
 Fixed Steel Prices, Oct 18 p 940
 Forward Look in Machine Tools, Nov 15 p 1198
 Future Status of Railroads, Dec 13 p 1433
 Government Expenditures for Steel, Sept 13 p 609
 Government Help on Labor, July 26 p 201
 Government Should Stimulate Output, Aug 30 p 496
 Highest Trade Balance, Sept 20 p 687
 Increased Capital Demands, Dec 6 p 1374
 Inexperience at a Premium, Dec 20 p 1482
 Iron Trade Organization for War, Aug 23 p 437
 Japan's Ship Plate Orders, Aug 9 p 326
 Labor Conditions During War, Aug 2 p 271
 Labor Leaders Stop Strike, Aug 9 p 325
 Labor Union Foes, Nov 15 p 1196
 Less Pig Iron But More Steel, Nov 15 p 1197
 Loyal Foreign Workers, Dec 20 p 1482
 Loyalty of Free Workingmen, Sept 13 p 608
 Machine Tool Industry and War, Oct 4 p 830
 Manganese in the Basic Open Hearth, Nov 29 p 1304
 Mobilizing Man Power, Nov 29 p 1304
 More Transportation or Less Freight, Nov 22 p 1249
 More Urgent Call for Manganese, Aug 2 p 272
 Needs of Ordnance Department, Oct 25 p 1004
 New Leadership Needed, July 12 p 89
 No War After the War, Sept 6 p 546
 Organized Labor's Misguided Acts, Nov 1 p 1072
 Pig Iron from Steel Scrap, Aug 30 p 497
 Pig Iron Production Falling Off, Aug 16 p 381
 Plates Must Win the War, July 5 p 30
 Playing Into Enemy Hands, Sept 13 p 609
 Price Control Enforceable, Oct 18 p 941
 Price Fixing and Maximum Output, July 12 p 88
 Price Fixing in England, July 19 p 143
 Price Regulation at Hand, July 19 p 142
 Price Revision Jan 1, Nov 1 p 1071
 Priority in Machine Tools, Oct 25 p 1003
 Progress in Electric Steel, July 19 p 144
 Proposed Revision of Tariff, Dec 13 p 1432
 Prospects for Steel Demand, Aug 30 p 497
 Prospects of Freight Congestion, Aug 23 p 437
 Prouty, Judge, Words of Caution, Dec 27 p 1544
 Railroad Securities and Pooling, Dec 6 p 1374
 Rapid Progress of Safety Movement, Sept 20 p 688
 Record in Manganese Products, Sept 6 p 548

Regulation of Prices or Conditions, July 26 p 200
 Scrap Dealers and the Fall in Prices, Aug 23 p 438
 Selective Exemption of Workers, Aug 2 p 270
 Some Results of Co-operation, July 26 p 202
 Steel Corporation's Profits, Nov 8 p 1131
 Steel Deliveries, Regulation, July 5 p 31
 Steel Exports, Future, July 5 p 30
 Steel Exports to Allies, Aug 23 p 436
 Steel for "Unessentials," Nov 29 p 1304
 Steel Industry's Wage Advance, Sept 27 p 753
 Steel Output Larger, Aug 23 p 436
 Steel Prices Fixed—A New Era, Sept 27 p 752
 Steel Profits by Processes, July 26 p 201
 Steel Resales and Commissions, Oct 4 p 828
 Stimulus to Manganese Mining, July 12 p 90
 Sulphur in Steel Castings, July 12 p 90
 Undivided Loyalty Demanded, Oct 18 p 941
 Unusual Methods of War Time, Aug 16 p 382
 Unwise Price Tinkering, Dec 6 p 1372
 War and Peace Business, Nov 1 p 1071
 War and Wealth, Sept 6 p 547
 War Lesson for Industry, Sept 20 p 687
 War Spirit of the People, Aug 16 p 382
 War Taxes and New Construction, Sept 6 p 546
 War-Time Labor and the Unions, July 19 p 143
 War's Economic Changes, Nov 22 p 1248
 Workmen and Performance, Nov 22 p 1248

Eddystone Steel Co.:
 Proposed Additions, Sept 13 p 610
 Education:
 Broader Vocational, Sept 13 p 590
 Competitive, Between Nations, Oct 25 p 984

Edwards, E. W.:
 Acquires Canonsburg Iron & Steel Works, Dec 6 p 1400
 Efficiency and Fatigue in British Munitions Plants, Aug 23 p 433

Eib, J. P.:
 Mill Employees' Lunchrooms, Dec 27 p 1537

Electric Battery and Acetylene Companies' Proposed Merger, Oct 4 p 851

Electric Controller & Mfg. Co.:
 Employees' Life Insurance, Dec 20 p 1471

Electric Oven for Baking Cores,* Sept 20 p 652

Electric Steel Co.:
 Property Purchased, Aug 23 p 435

Electrical Engineers:
 (See Association of Iron and Steel Electrical Engineers)

Electro-Chemical Society:
 (See American Electro-Chemical Society)

Electrodes:
 New Company to Make Silico-Manganese and Carbon, Oct 4 p 849

Norway to Make, Dec 6 p 1402

Electrolytic Aluminum and Carbon Consumption, July 12 p 111

Electromagnetic Alloy, Becket, Dec 13 p 1429

Elwell-Parker Electric Co.:
 Elevating Industrial Truck,* Sept 6 p 531

Embargoes:
 Automobile Alloy Steel, Nov 22 p 1271
 List of, Sept 20 p 710; Oct 11 p 882; Oct 25 p 1005
 Steel Export, Aug 9 p 310; Dec 6 p 1395

Engelhard, Charles:
 Protective Tube for Thermocouples, Nov 1 p 1063

Engineering:
 Revision Lessens Accidents, Sept 13 p 601
 Unique Agency, Oct 11 p 914

Engineering Council:
 Organized, July 5 p 56

Engineers, Mining, to Discuss Manganese, Sept 13 p 632

Engines:
 Aviation, Production May Exceed 40,000, Sept 20 p 684
 Government to Develop Standard Airplane, July 5 p 29
 Maritime Controller for Hoisting,* Nov 1 p 1057

Engines, Gas:
 Versus Turbo Units, Sept 6 pp 542 and 583

Evans, David:
 Sand Blast Operation,* Sept 20 p 677

Exemptions:
 Industrial War, Aug 9 p 350; Sept 20 p 685
 Needed for War Deliveries (Editorial), Sept 27 p 754
 Questions, Aug 2 p 293

Exhibits:
 Foundry and Machine,* Oct 3 p 824; Oct 11 p 876
 Foundry and Machine Layout,* Sept 20 p 670
 Safety Appliances in New York, Sept 20 p 665

Exports:
 Articles Not Requiring Licenses, Oct 4 p 847
 Automobile (Editorial), Dec 20 p 1483
 Broader Field for Organizations, Dec 13 p 1456
 Coal to Canada Restricted, Nov 1 p 1104
 Copper, Five Months, 1917, July 19 p 146
 Dealers Agree Not to Sell to Enemy, Oct 18 p 963
 Declining, Sept 27 p 732
 Embargo List, Sept 20 p 710; Oct 11 p 882; Oct 25 p 1005
 Embargo on (Editorial), July 12 p 88
 Embargo Order, Aug 30 p 520
 Ferroalloys, Aug 16 p 403
 Ferrovanadium and Ferrotungsten, May, July 26 p 192
 Forms for Licenses, Aug 23 p 440
 Government License Policy Announced, Oct 18 p 961
 Increase in Explosives, Oct 11 p 869
 Increase in Manufactured Articles, Sept 27 p 735
 License Situation, Oct 4 p 855
 Permits Issued, July 19 p 146
 Permits Issued by Traffic Executive, Dec 20 p 1485
 Post-War Prospects, July 5 p 22
 Regulation of Tin Plate, Nov 15 p 1223
 Revised Steel List, July 26 p 228
 Steel, Future (Editorial), July 5 p 30
 Steel Plates, 1917, Nov 15 p 1225
 Steel Rails, Eight Months, 1917, Dec 20 p 1504
 Steel to Allies (Editorial), Aug 23 p 436
 Steel to Be Controlled July 15, July 12 p 92
 Steel to Warring Nations, Nov 1 p 1062

JULY-DECEMBER, 1917

Tightening the Blockade Against Germany, Oct 11 p 913
 Tin Plate, 1916-1917, Oct 11 p 877
 Tin-Plate Regulations, Nov 1 p 1057
 Trade as Affected by the War, Nov 1 p 1046
 Webb-Pomerene Bill Opens Way for, Dec 20 p 1476

Exports and Imports of Iron and Steel:
 May, July 12 p 70; June, Aug 16 p 374; July, Sept 13 p 610; Sept 20 p 654; August, Oct 18 p 934; September, Nov 15 p 1188; October, Dec 6 p 1399, Dec 13 p 1428

Expositions:
 Springfield Industrial, July 5 p 22

Express Traffic Association:
 Organize to Improve Service, July 5 p 18

Extensometer: Riehle Brothers New,* Sept 13 p 593

Extras and Differentials:
 See Prices on Iron Ore, Coke, Pig Iron, Finished Materials, Semi-Finished Materials, Billets, Cast-Iron Pipe, Steel Castings, Scrap, Warehouse, Tin Plate, Copper

Eye and Hand Versus Tongue and Ear, July 19 p 129

F

Fabricated Steel:
 Business, Aug 16 p 384; Sept 20 p 711; Oct 18 p 965; Nov 22 p 1233; Dec 20 p 1507
 Plan to Stimulate Building Construction, Sept 27 p 739

Fabricators:
 (See Steel Fabricators of the United States)

Fairbanks Steam Shovel Co.:
 To Install Snyder Electric Furnace, Oct 25 p 991

Farquhar, A. B., Co.:
 Beneficial Association, Aug 16 p 366

Farrell, James A.:
 Helping to Win the War Through Foreign Trade, Sept 27 p 740

Fatalities in Mines and Metallurgical Works, Dec 20 p 1507

Federal Export Corporation:
 Buys New Mexico Central Railroad, Oct 18 p 965
 Establishing Quarters in the Orient, Nov 1 p 1055
 Tremper, H. D., European Advisor, July 5 p 52

Federal Machine & Welder Co.:
 Purchases National Electric Welder Co., Oct 11 p 882

Federal Motor Truck Co.:
 Grinding as a Substitute for Milling,* Aug 2 p 237

Federal Shipbuilding Co.:
 Plant Commenced, Aug 23 p 441

Federal Trade Commission:
 Full Steel Production of First Importance, Dec 20 p 1469

Ferguson Steel & Iron Co.:
 Additions, July 5 p 19
 Cranes for Flexible Loads,* Dec 20 p 1471

Ferroalloys:
 Imports and Exports, Aug 16 p 403
 Imports to Be Controlled, Dec 20 p 1500

Ferromanganese:
 Imports, May, July 5 p 35; June, Aug 2 p 257; July, Sept 13 p 612; August, Oct 18 p 970; September, Nov 8 p 1119; October, Nov 29 p 1331
 Low-Carbon, Aug 23 p 425
 Pre-melting in an Electric Furnace, Aug 2 p 254
 Present Status, Aug 2 p 269; Dec 6 p 1352

Ferrosilicon:
 Analyzing Without a Platinum Crucible, Sept 13 p 589
 Commercial Analysis, Dec 6 p 1358
 Southern Ferroalloys Co. to Make, July 12 p 71

Ferrotungsten:
 Exports, May, July 26 p 192

Ferrovanadium:
 Exports, May, July 26 p 192
 Filing Machine, Newark,* Nov 8 p 1127

Finished Materials, Agreed Prices, Sept 27 p 756; Oct 25 p 1026; Nov 1 p 1074; Nov 8 p 1154; Nov 15 p 1222; Nov 22 p 1268; Dec 27 p 1542

Fire Alarm and Calling Systems, Standard Co.'s Factory,* Nov 1 p 1063

Fire Gun Mfg. Co.:
 Firebricks, Amalgam Cement for, Oct 4 p 803
 Pump Type Fire Extinguisher, Sept 27 p 741

Firing Door for Boilers, Economy,* Aug 2 p 263

Fitz, H. M.:
 Continuous Record of Plant Equipment, Aug 23 p 438
 Difference in High-Speed Drills,* Dec 6 p 1398

Flannery, Joseph M.:
 Improving Cast Iron with Uranium, Dec 13 p 1413

Flinn, Alfred D.:
 Brass and Bronze Inspection, Sept 6 p 540

Fluorspar, United States Production, 1916, Aug 23 p 421

Flux, Brass, to Reduce Silicates, Oct 18 p 927

Ford, Henry, & Son Co.:
 Contract Awarded for Furnaces and Tractor Plant, Oct 11 p 905

Forgings:
 Billet Specifications for, July 5 p 11
 Cooling Shell,* Sept 13 p 596; Oct 11 p 881
 Quenching Experiments and Physical Properties, July 12 p 111
 Shells at Curtis Plant,* July 5 p 1; July 26 p 183
 Tioga Steel & Iron Co.'s Contract, Sept 20 p 691

Founders' Association:
 (See National Founders' Association)

Foundry:
 Activity in War Period,* Sept 20 pp 650 and 724
 American Machine & Mfg Co.'s Concrete,* Oct 4 p 806
 American Sand Blasting, Sept 20 p 680
 Arcade Malleable Iron Co.'s New,* Sept 20 p 646
 Cast-Iron Briquettes, Dec 6 p 1397
 Cast-Iron Shells in Permanent Molds,* Oct 25 p 988
 Casting Bearings, Oct 18 p 932
 Cleveland Co-operative Stove Plate,* July 19 p 121
 Converter Explosions in German Steel, Sept 6 p 583
 Crude Oil, New Way to Burn,* Nov 1 p 1049
 Cutting Cost of Cupola Charging in Foundry,* Dec 13 p 1411
 Davis Self-Skimming Ladle,* July 12 p 69
 Discussion of General Questions at Convention, Oct 3 p 821
 Explosion in Italian, July 26 p 230
 Handling Refuse in Chisholm-Moore Plant,* Nov 15 p 1173
 Inquiry for Iron, Aug 16 p 401
 Latter-Day Problems, Sept 20 p 663
 Massillon New Steel, Oct 4 p 799
 Minimizing Lost Motion,* Sept 27 p 725

New Framingham,* Sept 20 p 648
 New Installations in New England,* Sept 20 p 645
 Penn Seaboard New, Oct 4 p 812
 Powdered Coal for Malleable Iron Melting, Dec 20 p 1498
 Sand Blast Operation,* Sept 20 pp 677 and 680
 Simple System of Foundry Accounting,* Sept 20 p 682
 Stafford Co.'s New,* Sept 20 p 645
 Start Made on Standard Cost System, Oct 4 p 814
 Timken-Detroit, for Economical Production,* Sept 20 p 659
 Utilizing Burned Sand, Nov 1 p 1050
 Welfare Work,* Sept 20 p 666
 Westinghouse Co. Giving Practical Course in Work, Aug 30 p 481
 Foundrymen's Associations:
 American: Convention Program, Aug 30 p 483; Sept 20 p 669; Exhibit,* Oct 4 p 824; Oct 11 p 876; Exhibition Layout,* Sept 20 p 670; Proceedings of Convention, Sept 27 p 776; Oct 4 p 813; Reservations for Exhibits, July 26 p 188; War Service Board, Nov 22 p 1266
 Pittsburgh, Oct 25 p 987; Nov 15 p 1223
 Framingham Foundries:
 New Foundry,* Sept 20 p 648
 France:
 American Arsenal to Be Established, Dec 6 p 137/
 Aviation Co-operation, Aug 9 p 326
 Car Purchases for United States Government Railroad, Aug 16 p 383; Aug 23 p 462
 Gun Contracts from United States Government, July 26 p 227
 National Laboratory for Physical Science and Mechanics, Aug 9 p 311
 Pipes of Electrolytic Iron, Dec 6 p 1402
 Tinning Cast-Iron Utensils, July 26 p 221
 United States Ordnance Depot, \$100,000,000 for, Oct 25 p 1023
 Freeland, W. E.:
 Fostering the Shop Spirit,* Nov 29 p 1285
 Foundries, New, in New England,* Sept 20 p 645
 Freight:
 Better Methods Needed for Handling, Dec 13 p 1434
 Less, or More Transportation (Editorial), Nov 22 p 1249
 Freight Rates:
 Advance Case, Nov 8 p 1133; Nov 15 p 1225
 Billets Advance, Aug 30 p 522
 Cast Pipe Rate, Complaint Against, Nov 1 p 1053
 Decision Rendered, July 5 p 14
 Eastern, Increased 14 Per Cent, Aug 23 p 462
 Higher on Iron and Steel for Western Roads, Dec 6 p 1374
 Higher Transcontinental Rates Asked, Nov 1 p 1095
 Light Rail Decision, Nov 1 p 1052
 Pig-Iron Rates, New, Aug 30 pp 495 and 522
 Pig Iron to Be Adjusted Again, Sept 6 p 570
 Pig Iron to Canada, Dec 6 p 1395
 Pittsburgh District Favored, Nov 15 p 1218
 Railroads Disagree, Aug 2 p 250
 Railroads to Ask for Advance, Oct 18 p 939
 Railroads to File Proposed Tariffs, Nov 29 p 1294
 Railroads to Have New Hearing, Oct 25 p 1005
 Readjustments in Central Territory, Dec 13 p 1455
 Transcontinental, Oct 11 p 881
 French Lorraine Iron Ore Deposits, Germany and, Nov 29 p 1298
 Frohman, E. D.:
 Brass Flux to Reduce Silicates, Oct 18 p 927
 Fry, Lawford H.:
 Notes on Some Quenching Experiments, July 12 p 111
 Fuel:
 Artificial, from Dust, July 26 p 223
 Boiler Economy with Peat, Aug 16 p 405
 Boiler for Gas Economy, Sept 6 p 534
 Economies in the Boiler Room, Dec 27 p 1538
 Government Solving Problems, Oct 25 p 1025
 Oil for, July 19 p 165
 Plant Economy, Methods to Improve, Dec 27 p 1528
 Pooling Plan Not Approved, Nov 29 p 1327
 Pulverized for Metal Furnaces, Sept 27 p 727
 Shortage in Youngstown District, Nov 15 p 1226
 Speeding Shipments for War Work, Dec 6 p 1400
 Steel Heating Economies, Nov 1 p 1046
 Fulton Mfg. Co.:
 Diesel Engine, Small, Aug 9 p 308
 Furnaces:
 Cement for High Temperature, Nov 8 p 1126
 Gas-Fired Welding,* Aug 23 p 422
 High Pressure Gas,* Aug 2 p 262
 Limestone for Flux, 1916, Aug 30 p 521
 Limestone Taken for Camp Roads, Nov 29 p 1325
 Pulverized Fuel for Metal, Sept 27 p 727
 Star and Crescent Sold to Tennessee Valley Iron & Railroad Co., Nov 22 p 1273
 Steel Heating Economies, Nov 1 p 1046
 Furnaces, Blast:
 Bethlehem, All in Operation, July 12 p 111
 British Conserving Dust, Oct 25 p 1007
 Bristol Sold, Nov 8 p 1135
 Cambria Completed in 57 Days, July 12 p 111; July 26 p 189
 Coke Breeze Recovery at Skip Hoists at Edgar Thomson Works,* Aug 30 p 475
 Dangers of Breakouts, Nov 29 p 1300
 Drying Air by Calcium Chloride Brine,* Dec 13 p 1429
 Economics in Burning Gas,* Dec 27 p 1534
 History of Jefferson Iron Co., July 26 p 230b
 How Goshen Was Remodeled,* Oct 25 p 1000
 Iro Ore for Thropp, Nov 29 p 1289
 Japan Seeking to Buy, Oct 18 p 939
 Mahoning Valley Activities, Sept 6 p 545
 Monthly Production,* July 5 p 34; Aug 9 p 328; Sept 6 p 550; Oct 4 p 850; Nov 8 p 1134; Dec 6 p 1376
 Notes, July 5 p 35; Aug 9 p 329; Oct 4 p 850; Dec 6 p 1377
 Refractories for Steel, Sept 27 p 731
 Republic Blown In, No. 5, Aug 2 p 263
 St. Louis Coke & Chemical Co. to Build, Nov 15 p 1218
 Siberian Purchased, Aug 16 p 375
 Three of Illinois Steel Co. Idle as Result of Fire, Dec 6 p 1377
 To Be Moved to New Fields,* Aug 30 p 495
 Wanted for Export, Oct 4 p 852
 Whitaker - Glessner, Description, Nov 29 p 1298
 Worth Brothers, Aug 30 p 497
 Furnaces, Electric:
 Arc of Rennerfelt, Dec 20 p 1484
 Baily Installations, Oct 18 p 938
 Booth-Hall Installations, Oct 18 p 963
 Brass Melting, July 5 p 29
 British Check on Industry (Editorial), Sept 27 p 754
 British Development Curbed, Sept 27 p 732
 British Installations, Aug 30 p 519; Nov 22 p 1251
 Central Station and, Dec 6 p 1356
 Energy Consumption and Other Data, Nov 1 p 1048
 Fairbanks Steam Shovel Co. to Install Snyder, Oct 25 p 991
 Greaves-Etchells American Co., Aug 23 p 433
 Greaves-Etchells Installations, Sept 13 p 613; Sept 27 p 770; Nov 8 p 1171; Nov 22 p 1264
 Greaves-Etchells Operated by a Boy,* Dec 13 p 1423
 Heroult Installations, Aug 9 p 349; Oct 11 p 887; Nov 15 p 1199
 Heroult Lining Records, Dec 20 p 1508
 Hess Lining Record, Dec 6 p 1357
 In Japan, Dec 6 p 1400
 In Non-Ferrous Industry, Nov 8 p 1122
 In Norway's Iron Industry, Nov 15 p 1226b
 In the Foundry, Oct 4 p 817
 Largest Heroult Operating, Oct 11 p 873; Nov 15 p 1219
 Ludlum, Description of,* Aug 30 p 485
 Midland Electric Steel Co. to Install Booth-Hall Furnace, Aug 30 p 519
 Pig Iron in War Time, Oct 11 p 886
 Pre-melting Ferromanganese, Aug 2 p 254
 Progress in Steel Making (Editorial), July 19 p 144
 Refining Hot Metal, July 5 p 18
 Seneca Electric Furnace Corporation to Make, Aug 2 p 291
 Smelting Iron Ores in Sweden, Sept 13 p 605
 Snyder, Acquired by Industrial Electric Co., July 12 p 85
 Steel Industry in United States and Canada, Sept 20 p 662
 Steel Production, Increase, July 19 p 171
 Furnaces, Open-Hearth:
 Bethlehem to Build More, Sept 27 p 730
 Dimensions, Dec 13 p 1422
 Gun for Removing Slag,* Oct 4 p 807
 High-Manganese Pig Iron in, Nov 29 p 1336
 Investigation of Acid Heat,* Oct 18 p 930
 Judson Mfg. Co. to Install New, Sept 27 p 727
 Manganese in the Basic (Editorial), Nov 29 p 1305
 Phases of Acid Process,* Nov 15 p 1190
 Reading Steel Casting Co., Dec 6 p 1401
 Tacony Ordnance Corporation to Install Two, Sept 6 p 530
 Furness, Radclyffe:
 High-Speed Steel, Sept 20 p 655
 G
 Galesburg Coulter-Disc Co.:
 Purchases Indiana Rolling Mill Co., July 26 p 228
 Gallup, Oren O.:
 American Tools in Foreign Markets, July 5 p 23

Gardner Machine Co.:
Vertical Disk Grinding Machine,* Dec 6 p 1351

Gary, E. H.:
Labor the Problem in Shipbuilding, Nov 22 p 1240
Welcomes Japanese Commission, Oct 4 p 853

Gas:
Blast-Furnace, Economies in Burning,* Dec 27 p 1534
Boiler, for Fuel Economy, Sept 6 p 534
Natural, Prices Higher, Aug 9 p 319
Pulverized Coal to Replace Natural, Dec 27 p 1560
Tin Plating with Coke Oven,* Dec 13 p 1418
Under Pressure, Cementation By, July 19 p 147

Gas, Producer:
Use Without Regenerators,* Aug 2 p 246

Gasoline:
Campaign to Reduce Waste, Nov 1 p 1062

Gear Manufacturers:
(See American Gear Manufacturers' Association)

Gears, Methods for Producing Spur, Nov 29 p 1295

General Electric Co.:
Dead Front Plug Switch, Sept 6 p 533
Solenoid Operated Field Switch,* July 26 p 193
Steam Turbine for Boiler Feed Pumps, Aug 9 p 318
Thermostatic Metal, New,* Aug 9 p 320
Transformers, Self-Cooled,* July 12 p 73

General Foundry & Mfg. Co.:
To Rebuild Plant, July 5 p 26

General Vehicle Co.:
Plant Taken Over by Government, Dec 20 p 1508

Generator Set, Crocker-Wheeler Motor,* Sept 27 p 739

Gennett, C. W., Jr.:
Shortage of 10,000,000 Tons of Rails,* Dec 27 p 1525

Germany:
And French Lorraine Iron Ore Deposits, Nov 29 p 1298
Brass and Copper Supply, July 12 p 105
Conservation of Structural Steel, Oct 11 p 875
Converter Explosions in Steel Foundries, Sept 6 p 583
Copper Supply, Oct 11 p 909
Dismantling of Belgium Steel Plants, Nov 1 p 1053
Embargo on Steel, Nov 29 p 1303
Foreign Trade Organization Busy on Post-War Business, Sept 27 p 733
High-Speed Steel, New, Nov 1 p 1065
Imports and Trade After War, Oct 18 p 939
Industrial Outlook After the War, July 19 p 127
Iron and Manganese Ore Supply, Nov 15 p 1189
Metallurgical Research, Aug 16 p 365
Pig Iron and Steel Output, May, July 19 p 147; June, July and August, Nov 1 p 1053
Post-War Trade with, July 12 p 83
Steel Industry's War Tasks, July 26 p 190
Steel Prices, July 19 p 159
Steel Trade, Dec 13 p 1467
Substitute for Lycopodium, Nov 29 p 1309
Tightening the Blockade Against Oct 11 p 913
Tin Plate Industry, Oct 11 p 877

Wages in, Dec 13 p 1453
War Profits, Aug 23 p 428
Women in Metal Trades, July 5 p 21
Women in Munitions Plant, Dec 6 p 1393
Zirconium Steel for Armor Plate, Dec 6 p 1359

Gier Pressed Steel Co.:
Plant Description,* Aug 23 p 415

Gilbert, A. W.:
Metal Fittings in Overseas Markets, July 5 p 24

Gisholt Machine Co.:
To Make Guns, Aug 9 p 327
Will Continue the Manufacture of Machine Tools, Aug 23 p 428

Gits Brothers Mfg. Co.:
Oil Cups as Substitute for Grease Cups, Nov 1 p 1055

Goethals, Gen. George W.:
Ship Program, July 19 p 126

Goggles, Strauss & Buegeleisen Safety,* Sept 6 p 535

Gorton, George, Machine Co.:
Internal Bar Cutting-Off Machine,* Nov 8 p 1113

Goshen Furnace Remodeling,* Oct 25 p 1000

Government:
Cannot Fix Prices for Public, Aug 23 p 461
Coal Prices Fixed, Aug 23 p 461
Commandeering Machinery (Editorial), Aug 9 p 325
Contracting System Adopted, Aug 16 p 404
Control of Coal and Coke, Aug 9 p 322
Control of Industries, July 5 p 27
Control of Iron and Steel, Aug 16 p 378
Control of Prices, Merchants' and Manufacturers' Association to Take Action, Aug 9 p 315
Cost-Plus System Severely Criticized, Sept 27 p 728
Manufacturers and Section 3 of Lever Act, Aug 23 p 434
Metallurgists Needed by, Aug 23 p 462
Plan to Prevent Strikes, Aug 16 p 368
Prospects of Greater Federal Control, Dec 27 p 1540
Rifle Contracts Defended, Sept 27 p 736
Takes Over Shipyards at Gloucester City, N. J., Dec 27 p 1547
To Buy Machinery, July 5 p 20
Turbine Plant at Buffalo, Oct 25 p 1001
War Loans, Aug 23 p 424

Graduating Machine, Noble & Westbrook,* Dec 27 p 1539

Graphite Lubrication,* Sept 13 p 596

Great Britain:
Alterations in Steel Sections, Aug 23 p 429
Artificial Fuels from Dust, July 26 p 223
Basic Pig Iron Output, Dec 13 p 1459
Bennis Pneumatic Ash and Flue Dust Plant, Nov 1 p 1061
Check on Electric Steel (Editorial), Sept 27 p 754
Cognizance of American Shipbuilding, Aug 23 p 418
Coke Oven Gas and Fuel Problem, July 26 p 189
Conserving Blast Furnace Dust, Oct 25 p 1007
Control of Lead Supply, Oct 18 p 961
Copper Needs, July 6 p 21
Curbs Electric Steel Development, Sept 27 p 732
Ebbw Vale Steel, Iron & Coal Co. to Extend Plant, Oct 18 p 963
Efficiency and Fatigue in Munitions Factories, Aug 23 p 433
Electric Steel Furnaces Installed, Aug 30 p 519; Nov 22 p 1251

Expansion of Steel Industry, Oct 4 p 806
Exports and Controlled Prices for Steel Bars, Sept 20 p 689
Exports of Steel, Oct 25 p 1004
Exports of Sheets and Tin Plates, July 12 p 90

Greaves-Etchells Electric Furnace Operated by Boy,* Dec 13 p 1423
Heavy Armor Plate Rolled, Sept 13 p 626

Iron Ore Production, 1916, Sept 20 p 655

Machine for Making Metal Briquets, Sept 20 p 711

Machine Tool Order, July 12 p 105
Maximum Steel Prices, July 19 p 171
Mill Rope Drives,* Nov 1 p 1064
Need of More Ore, Dec 6 p 1371
Papers Read at Iron and Steel Institute Meeting, Oct 4 p 806
Pig Iron from Scrap, Sept 13 p 629
Pig-Iron Output Increasing, Sept 6 p 545
Price Fixing (Editorial), July 19 p 143
Report on Iron Ores, Aug 2 p 242
Restrictions on Chrome Ore and Benzol, Sept 20 p 655
Scrap Prices, Sept 13 p 613
Stainless Steel Production Prohibited, Oct 25 p 1018
Steel Exports, May, July 12 p 86; June, Sept 13 p 613; Third Quarter, Nov 29 p 1294
Steel Exports to France, Dec 13 p 1458
Steel for Shells (Editorial), Oct 18 p 942
Steel Trade After War, Nov 29 p 1303
Trade Union Rules After War, Aug 9 p 323
Union of Steel Chemists, Nov 29 p 1293
Urges Sales Agency, July 26 p 236
War Supplies, July 5 p 17
Wire Drawing, Aug 9 p 308
Women Employees in Steel Works,* July 26 p 197

Greaves-Etchells Electric Furnace: Installations, Sept 13 p 613; Sept 27 p 770; Nov 8 p 1171; Nov 22 p 1264
Operated by a Boy,* Dec 13 p 1423

Greaves-Etchells Electric Furnace, American Co., Aug 23 p 433

Greece:
Magnesite Exports, 1916, Dec 6 p 1401

Green, James A.:
History of Jefferson Iron Co. Furnace, July 26 p 230b

Greenwood, Walter:
Steel Plant Electrical Safety Provisions, Oct 25 p 992

Gregg, Richard B.:
Labor Turnover, Dec 13 p 1419

Grenet, L.:
Hardening Carbon and Special Steels, Oct 4 p 808

Griffiths, F. J.:
Chrome Vanadium in Steel, Aug 2 p 266

Grinding as Substitute for Milling in Federal Motor Truck Plant,* Aug 2 p 237

Grinding Machines:
Besly Spindle for Disk, Oct 18 p 933
Gardner Vertical Disk,* Dec 6 p 1351
Hy-Grade Automobile Cylinder,* Oct 11 p 877
Ott Cross Feed,* Aug 2 p 254
Ott Valve Seat,* Nov 29 p 1289
Noble & Westbrook Automatic Surface,* Dec 6 p 1359
Patch Double-Spindle 18-in.,* Sept 13 p 591
Rivett Automatic Radial, Oct 18 p 927

Sleeper & Hartley Nail Die,* Aug 30 p 491

Wilmarth & Norman Automatic Feed Tool,* Dec 27 p 1527

Grinding Wheel for Munitions Plant, White, Aug 9 p 317

Griscom-Russell Co.: Quenching and Lubricating Oil Cooler,* Oct 25 p 999

Grum-Grzhimailo, V.: Dimensions of Open-Hearth Furnaces, Dec 13 p 1422

Guns: Demand for Machine, July 12 p 84

Figuring on Carriages for, Sept 13 p 629

For United States Army, Aug 9 p 317

France Gets American Contract for, July 26 p 227

Government Orders for Machine, July 5 p 32

Government to Buy Browning Machine, July 26 p 217

Poole Engineering & Machine Co. to Make, Dec 27 p 1538

Uranium Steel for Linings, July 5 p 14

Year's Developments in Naval, Dec 20 p 1486

H

Hagan, George J., Co.: Steam-Jet Ash Conveyor,* Dec 13 p 1457

Halligan, H. A.: Organization of Western Electric Co., Dec 13 pp 1415 and 1467

Hammers: Chambersburg Double-Acting Forging,* Sept 13 p 600

Haney, Marshall: Manganese Ores of Virginia, Oct 11 p 884

Hanna, M. A., & Co.: Buy Coal Properties, July 26 p 217

Take Over Hill Iron Mines, July 19 p 172

Harbison-Walker Refractories Co.: Annual Report, Dec 20 p 1501

Harder and McFarland: Chromium, Copper and Nickel Alloys, July 5 p 26

Hardinge Brothers, Inc.: To Build New Plant, Sept 27 p 750

Hardness Tester, Waldo,* Sept 13 p 603

Harrington, Joseph: Powdered Coal for Malleable Iron Melting, Dec 20 p 1498

Harrington, R. F.: Utilizing Burned Sand, Nov 1 p 1050

Harris, G. A.: Broader Field for Export Organization, Dec 13 p 1456

Harris, H. E., Engineering Co.: Automatic Press with Multiple Plungers,* July 2 p 9

Offset Attachment for Drilling Machine,* Aug 23 p 423

Testing Machine for Thread Gage Leads,* Oct 18 p 937

Harrow Spring Co.: Records for Heroult Electric Furnace Lining, Dec 20 p 1508

Haswell, John C.: Discussion, Malleable Iron and Its Uses, Nov 8 p 1121

Hatfield, Dr. W. H.: Steel for Airplanes, Nov 15 p 1200

Heald Machine Co.: Magnetic Chuck with Rectangular Tops,* Dec 20 p 1475

Heat Transmission Through Roofing, Dec 27 p 1526

Heat Treatment: Hardening Carbon and Special Steels, Oct 4 p 808

Timken-Detroit Axle Co.'s Plant for,* Oct 4 p 791

United Alloy Steel Corporation's Plant for,* Dec 6 p 1347

Heating Economies, Steel, Nov 1 p 1046

Heine Safety Boiler Co.: First Boiler Still Fit for Service, Oct 25 p 992

Helmets, War, In an American Factory, Making,* Dec 6 p 1368

Heppenstall Forge & Knife Co.: To Forge Guns, Aug 23 p 426

Heroult Furnaces: Installations, Aug 9 p 349; Oct 11 p 887; Nov 15 p 1199

Largest, Oct 11 p 873; Nov 15 p 1219

Lining Records, Dec 20 p 1508

Hess Steel Corporation: Record for Electric Furnace Lining, Dec 6 p

Hill, Clarke & Co.: Removal, July 5 p 29

Hill Iron Ore Properties Taken Over by M. A. Hanna & Co., July 19 p 172

Hill, Myron F.: Repairing German Ships by Arc Welding, Nov 8 p 1132

Welded Cast Steel Ship Sections, Aug 9 p 348

Hobbs, J. C.: Boiler for Gas-Fuel Economy, Sept 6 p 534

Hodson, F.: Pig Iron from Steel Scrap in Great Britain, Sept 13 p 629

Holland: To Have Steel Plants, Nov 1 p 1063

Hopkins & Allen Arms Co.: Plant to be Sold, Aug 30 p 513; Sept 20 p 715

Housing Problems, Industrial,* Dec 27 p 1530

Howe, H. M.: Manganese in Ordnance Steel, Nov 1 p 1069

Manganese in Steel Making, Aug 2 p 239

Hull, George H.: Pig-Iron Reservoir Advocated, Nov 29 p 1306

Pig Iron Warrants, July 12 p 71

Hulsbrink, Frank J.: Conserving Steel Tools, Oct 11 p 891

Humbert, Ernest: Low Carbon Ferromanganese, Aug 23 p 425

Hy-Grade Machine Co.: Automobile Cylinder Grinding Machine,* Oct 11 p 877

Hydraulic Pressed Steel Co.: Absorbs Canton Sheet Steel Co., Oct 25 p 1018

I

Illinois Steel Co.: Employees' Lunchrooms, Dec 27 p 1537

Operating Large Heroult Furnaces, Nov 15 p 1219

Three Blast Furnaces Idle as Result of Fire, Dec 6 p 1377

Imports: American Iron and Steel Institute to Regulate Tin, Nov 29 p 1336

Canada's Trade with United States, Aug 16 p 370

Ferroalloys, Aug 16 p 403

Ferroalloys and Their Ores to be Controlled, Dec 20 p 1500

Ferromanganese, May, July 5 p 35; June, Aug 2 p 257; July, Sept 13 p 612; August, Oct 18 p 970; September, Nov 8 p 1119; Nov 29 p 1331

Iron Ore, Eight Months, 1917, Nov 22 p 1251

Manganese Ore, April, July 5 p 8; May, July 12 p 86; June, Aug 30 p 514; July, Sept 27 p 777; August, Oct 18 p 965; September, Nov 22 p 1236

Terms of Licenses, Dec 6 p 1367

Trade Regulation by Licenses, Dec 6 p 1354

Imports and Exports of Iron and Steel: May, July 12 p 70; June, Aug 16 p 374; July, Sept 13 p 610; Sept 20 p 654; August, Oct 18 p 934; September, Nov 15 p 1188; October, Dec 6 p 1399; Dec 13 p 1428

India: Manganese Ore Exports, 9 Months, July 5 p 29; Fiscal Year, Nov 1 p 1055

Manganese Ore Output, Dec 13 p 1459

Munition Steel Output, Aug 16 p 375

Pig Iron Output, 1916, Aug 30 p 501

Steel Output, 1915-1916, Sept 13 p 632

Indiana Rolling Mill Co.: Purchased by Galesburg Coulter Disc Co., July 26 p 228

Industrial Electric Furnace Co.: Acquires Snyder Electric Furnace Co., July 12 p 85

Industries, Government Control of, July 5 p 27

Inexperience at a Premium (Editorial), Dec 20 p 1482

Ingots: Defects in Steel, July 5 p 8

For Guns, Tacony Ordnance Corporation to Make, Sept 6 p 530

Rolling from Green,* Sept 6 p 529

United States Production, Nine Months, 1917, Oct 11 p 891; 10 Months, Nov 15 p 1200; November, Dec 13 p 1457

Inland Ordnance Co.: Organized, Aug 9 p 323

Inland Steel Co.: To Resume Manufacture of Galvanized Sheets, Sept 20 p 716

Institute: (See American Iron and Steel Institute)

Institute of Metals: (See American Institute of Metals)

Insurance: Electric Controller Life Plan, Dec 20 p 1471

Group and Labor Turnover, Dec 6 p 1398

International Steel Tube & Rolling Mills, Inc.: To Build Boiler Tube Mill, Dec 20 p 1508

Interstate Commerce Commission: Cast-Pipe Freight Rate, Complaint Against, Nov 1 p 1053

Division of Car Service, July 19 p 139

Fabrication in Transit, Oct 4 p 807

Freight Rates Advance Case, Nov 8 p 1133; Nov 15 p 1225

Higher Freight Rates on Iron and Steel for Western Railroads, Dec 6 p 1374

Higher Transcontinental Freight Rates Asked, Nov 1 p 1095

Light Rail Freight Rate Decision, Nov 1 p 1052

Lighterage Charges Higher, Dec 13 p 1459

Pig Iron Freight Rates to be Adjusted Again, Sept 6 p 570

Railroads to Have New Hearing on Freight Rates, Oct 25 p 1005

Rate Decision Rendered, July 5 p 14

Inter-State Machine Products Co.: Lubricator for Bearings, Multiple Force Feed, Dec 27 p 1529

Inventions, To Keep Secret Patented War, July 5 p 47

Iron: Brazilian Ore, Nov 22 p 1237

British Need of Ore, Dec 6 p 1371

British Ore Production, 1916, Sept 20 p 655

British Ore Report, Aug 2 p 242
 Cast in Metal Molds, Structure of,* Sept 20 p 656
 Consumers' Interest in Prices, July 26 p 229
 Contract Foundry Less Than Half Current Prices, Sept 6 p 549
 Corrugated, Asbestos Cement Sheets as Substitute, July 26 p 221
 Effect of Various Elements in the Strength of Cast, Aug 2 p 261
 Embargo, Aug 9 p 310
 Germany and French Lorraine Ore Deposits, Nov 29 p 1298
 Improvement in Malleable,* Oct 4 p 802
 Malleable, and Its Uses, Nov 1 p 1105; Nov 8 pp 1120 and 1171
 Ore from Lakes to St. Louis by Water,* Sept 13 p 587; Oct 25 p 1022
 Ore Imports, Eight Months, 1917, Nov 22 p 1251
 Report of Bureau of Mines, Nov 15 p 1194
 Spain's New Plant, Aug 16 p 373
 Trade Organization for War (Editorial), Aug 23 p 437
 Unusual Structures of Wrought,* Sept 6 p 538
 Iron and Steel Institute:
 Fall Meeting Papers, Oct 4 p 806
 Ironton Punch & Shear Co.:
 Double Plate Punching Machine,* Aug 9 p 321
 Italy:
 Explosion in Foundry, July 27 p 230a
 Maximum Coke Prices, Sept 13 p 626

J

Janssen, W. A.:
 New Way to Burn Crude Oil,* Nov 1 p 1049
 Japan:
 Copper Output, 1916, July 26 p 230c
 Developing Iron Industry, Sept 20 p 685
 Electric Furnace in, Dec 6 p 1400
 Oriental Steel Mfg. Co., Sept 20 p 668
 Plates for, Nov 15 p 1221
 Seeking to Buy Blast Furnaces, Oct 18 p 939
 Ship Plate Orders for (Editorial), Aug 9 p 326
 Steel Making, Oct 11 p 882
 Steel Plate and Ship Negotiations, Nov 22 p 1271
 Steel Plate Exports, Large Share in, Nov 15 p 1225
 To Aid Chinese Enterprise, Oct 25 p 997
 World's Tallest Chimney, July 5 p 14
 Jefferson Iron Co.:
 History of Furnace, July 26 p 230b
 Jeffrey Mfg. Co.:
 Conveying-Machinery Parts, Stock List, Dec 27 p 1538
 Jobbers', Iron and Steel, Status of, Oct 4 p 854
 Johns, Cosmo:
 Refractories in Steel Industry, Aug 2 p 248
 Johnson, C. W.:
 Vice-President American Institute of Metals,* Oct 18 p 968
 Johnson, J. E., Jr.:
 Our Manganese and Chromium Supplies, Nov 29 p 1328
 Joint, Nuttall One-Piece Expansion,* July 26 p 198
 Jones & Laughlin Steel Co.:
 Plate Mill Started, Aug 2 p 291
 Strike at Eliza Furnaces, Sept 20 p 712; Sept 27 p 751; Oct 11 p 905
 Washington Office, Aug 9 p 321
 Jones, W. A., Foundry & Machine Co.:
 Minimizing Lost Motion,* Sept 27 p 725

Jones, W. J.:
 Refractories for Steel Furnaces, Sept 27 p 731
 Jonson, Ernst:
 Brass and Bronze Inspection, Sept 6 p 540
 Judicial Decisions:
 (See Decisions of Interest to Manufacturers)
 Judson Mfg. Co.:
 Government Contract for Vessels, Aug 2 p 242
 To Install New Open-Hearth Furnace, Sept 27 p 727
 K
 Kelly-Atkinson Construction Co.:
 Composite Ships to be Built near Mobile, Aug 9 p 323
 Kennedy, D. R.:
 Steel Plant Accidents, Oct 25 p 998
 Kennedy, R. E.:
 Economical Production of Small Cores,* Oct 11 p 878
 Kennedy, Samuel H.:
 Government's Labor Shortage, A Why for, Nov 1 p 1069
 Kennedy, Walter C.:
 Energy Consumption and Other Data on Electric Furnaces
 Kent, Dr. William:
 Tongue and Ear Versus Eye and Hand, July 19 p 128
 Kenyon, Otis A.:
 Influence of Current on Arc Welds, Dec 6 p 1398
 Keystone Steel & Wire Co.:
 Blooming Mill Started, July 26 p 203
 Kilbourne & Clark Mfg. Co.:
 To Build Radio Sets, July 5 p 57
 Kilby, J. N.:
 Steel Ingot Defects, July 5 p 8
 Klinkenberg, Adolph:
 Carbohydrates as Steel Deoxidizer, Nov 1 p 1062
 Koppers, H., Co.:
 By-Products Coke Ovens in United States, Oct 4 p 852
 Toluol from City Gas, Nov 22 p 1275
 Kreuzpointner, Paul:
 Broader Scope for Vocational Training, Sept 13 p 590
 Competitive Education Between Nations, Oct 25 p 984
 Krom-nik Gear Co.:
 Organized, July 12 p 113
 L
 Labor:
 Accident Hazards of Forming and Forging Machines, Dec 6 p 1350
 Accident Hazards of Sheet Mills, Dec 27 p 1547
 Adjustment to War, Dec 6 p 1364
 Alien and Industrial Worker, Aug 23 p 430
 Allocation and Dilution of (Editorial), Oct 25 p 1003
 Bridgeport Machinists to Strike, Sept 20 p 711
 Carbon Steel Co. Defends Action in Paying Bonuses, Nov 8 p 1153
 Child Labor Law, Radical Departure, Sept 6 p 532
 Cleveland Crane & Engineering Co.'s Annual Bonus Plan, Dec 27 p 1562
 Closed or Open Shop? Oct 11 p 916
 Colorado Fuel and Iron's Wage Increases, Aug 30 p 494
 Concrete Housing Development by American Steel & Wire Co.* Oct 11 p 867
 Conditions During War (Editorial), Aug 2 p 271
 Conscription Probably Not Necessary, Dec 13 p 1412
 Copper Miners Agree to Arbitrate, Oct 18 p 932
 Copper Miners' Strikes, July 5 p 57
 Cost of Health Supervision, Aug 30 p 492
 Court Decisions on Questions, Nov 22 p 1236
 Draft and, Aug 23 p 441
 Employment of Women in Youngstown, July 19 p 147
 Enlistments from Munitions Plants Stopped in New England, Dec 20 p 1484
 Exemptions Needed for War Deliveries (Editorially), Sept 27 p 754
 Exemption Questions, Aug 2 p 293
 Exemptions of Employees to Draft, Aug 9 p 350
 Fatalities in Mines and Metallurgical Works, Dec 20 p 1507
 First-Aid Work at Bethlehem Steel Co., Nov 29 p 1288
 Government Favors Short Hours, Nov 22 p 1274
 Government Help (Editorial), July 26 p 201
 Government Plan to Prevent Strikes, Aug 16 p 368
 Government Steel-Plant Accident Statistics, Dec 6 p 1359
 Government to Intervene in Case of Railroad Strike, Nov 22 p 1273
 Group Insurance and Turnover, Dec 6 p 1398
 Houses Needed for Government Employees, Nov 8 p 1154
 How to Prepare Soldier Cripples for Industry,* Oct 25 p 981
 Illinois Steel Employees Lunchrooms, Dec 27 p 1537
 Illiterate Worker in War Time, Aug 16 p 372
 Industrial Housing Problems,* Dec 27 p 1530
 Industrial Workers and Medical Inspection, July 19 p 144
 Investigation of Accidents, Nov 15 p 1201
 Leaders Stop Strike (Editorial), Aug 9 p 325
 Life Insurance at Electric Controller Plant, Dec 20 p 1471
 Loyal Foreign Workers (Editorial), Dec 20 p 1482
 Loyalty of Free Workingmen (Editorial), Sept 13 p 608
 Managing Alien Workers in War Time, Aug 2 p 252
 Many Plants Idle in the Pacific Northwest, Aug 2 p 241
 Maryland Compulsory Work Law, Oct 4 p 853
 May Be Transported to Pacific Coast, Dec 20 p 1506
 Merchants' and Manufacturers' Association Discuss Problems, Aug 16 p 373
 Milwaukee Opposed to Negro, Nov 15 p 1189
 Misguided Acts of Organized (Editorial), Nov 1 p 1072
 Mobilization of, Nov 15 p 1224
 Mobilizing Man Power (Editorial), Nov 29 p 1304
 Moore Drop Forging Co. Adopts Group Insurance, Aug 30 p 479
 Naval Employees Increasing, July 19 p 145
 National Conditions Considered, Sept 13 p 588
 Negro Migration, July 12 p 91
 New Departure Mfg. Co. Fostering the Shop Spirit,* Nov 2 p 1285
 New Leadership Needed (Editorial), July 12 p 89
 Niles Tool Works Co. Granted Injunction Against Molders' Union, Oct 18 p 969
 No Shortage Expected in Pittsburgh, July 26 p 221
 Organizing to Cause Strike Illegal, Dec 13 p 1436
 Output and Fatigue, July 19 p 141

Pacific Coast Strike, Investigation, Oct 18 p 936; Ended, Nov 8 p 1158

Peril of Closed Shop, Nov 29 p 1292

Problem in Shipbuilding, Nov 22 p 1240

Puddlers and Mill Workers Receive Highest Wages Ever Paid, Sept 6 p 545

Puddlers' Wages Advanced, Nov 15 p 1189

Selective Exemption of Workers (Editorial), Aug 2 p 270

Serious Troubles on the Pacific Coast, Oct 11 p 914

Shepard Electric Crane & Hoist Co. to Insure Workers, Oct 11 p 885

Shop Dividends Due to Personnel Work,* Nov 1 p 1058

Shortage, A Why for Government's, Nov 1 p 1069

Shortage Interferes with Government Operations, Oct 18 p 962

Shortage Survey in New York State, Dec 13 p 1435

Skilled Men Drafted for War Duty, Nov 8 p 1118 and 1170

State Exchanges, Dec 20 p 1487

Statement Wanted of Government Policy, Nov 8 p 1135

Steel Corporation Again Advances Wages, Sept 27 p 751

Steel Industry's Wage Advance (Editorial), Sept 27 p 753

Steel Plant Accidents, Oct 25 p 998

Strike at Eliza Furnaces of Jones & Laughlin Steel Co., Sept 20 p 712; Sept 27, p 751; Oct 11 p 905

Strike of Building Trades at Watertown Arsenal, Oct 25 p 1023

Strikes at Boston, Nov 22 p 1251

Switchmen's Strike Ended, Aug 2 p 275

Turnover Records, Dec 13 p 1419

Undivided Loyalty of Government Employees Demanded (Editorial), Oct 18 p 941

Union Foes (Editorial), Nov 15 p 1196

Union Not Recognized in Alabama Mines, Sept 6 p 571

Unique Engineering Agency, Oct 11 p 914

Wage Advances, Bonuses and Strikes, Aug 30 p 494; Sept 6 p 572; Sept 13 p 612; Sept 27 p 780; Oct 4 pp 811 and 853; Oct 11 p 914

Wage Advances, Views on, Oct 11 p 890

Wages of Men and Women in Germany, Dec 13 p 1452

Wages of Puddlers and Mill Workers Advanced, July 12 p 111

Wages of Sheet and Tin Plate Workers Advanced, Nov 15 p 1225

Wages in Navy Yards, Oct 11 p 915

War-Time, and the Unions (Editorial), July 19 p 143

War with Austria Has Little Effect, Dec 13 p 1451

Welfare Work in Foundries,* Sept 20 p 666

Wisconsin Aliens May Recover Compensation, Dec 6 p 1352

Wisconsin's New Compensation Law, Sept 13 p 607

Women Employees in British Steel Works,* July 26 p 196

Women in German Metal Trades, July 5 p 21

Women in German Munition Plants, Dec 6 p 1393

Women in Iron and Steel Trades, Sept 27 p 730

Women Replace Men in Inspection Department of Burroughs Plant, Dec 20 p 1477

Women to Be Employed in Ports-

mouth Navy Yard, Nov 22 p 1253

Workmen and Performance (Editorial), Nov 22 p 1248

Workmen's Legal Rights, Aug 2 p 264

Labor Legislation: (See American Association for Labor Legislation)

Laboratory, Aeronautical Research, July 12 p 83

Lackawanna Steel Co.: Quarterly Statement, July 19 p 160; Oct 18 p 961

Steel-Making Costs, Aug 16 p 401

Ladle: Davis Self-Skimming,* July 12 p 69

Stopper, Mechanically Operated,* Aug 9 p 309

Laidlaw-Dunn-Gordon Co.: Air Compressor, Small Direct-Connected,* Nov 1 p 1051

Lake Superior Corporation: Annual Meeting, Oct 11 p 905

Cunningham, Wilfred H., President,* Sept 6 p 568

Lake Superior Ore: Production, United States, 1916, Aug 23 p 459

Shipments, June, July 12 p 113; July, Aug 9 p 319; Aug, Sept 13 p 626; Sept, Oct 11 p 881; Oct, Nov 8 p 1153; Nov, Dec 13 p 1412

Shipments in 1917 Less than 1916, Dec 20 p 1503

Two Mines Sold, Nov 8 p 1127

Lanahan, Frank: Malleable Iron and Its Uses, Discussion, Nov 8 p 1121

Landis Machine Co.: Threading Machine for Staybolt Tubes,* Oct 4 p 801

Langenberg, F. C.: Cementation by Gas Under Pressure, July 19 p 147

Landman, E. B., Co.: Purchases Riverdale Rolling Mill, Aug 9 p 329

Lathes: American 14-In. with Special Feed,* Oct 25 p 991

Cincinnati Heavy Duty for Shells,* Aug 2 p 255

Crawford 15-In. for Toolrooms,* Nov 29 p 1293

Davis 12-In. Toolroom,* Aug 2 p 251

Luster-Jordan for Turning Torpedo Heads,* Aug 23 p 432

Master 13-In. Geared,* Oct 25 p 997

Moller Ball Bearing Center for Shell,* Dec 6 p 1351

Lava Crucible Co.: To Develop New Design of Crucible, July 5 p 51

Le Chatelier, H.: Carbon Analysis by Color, Sept 20 p 712

Lead: British Control of, Oct 18 p 961

United States Production, First Half 1917, Sept 6 p 583; Nov 29 p 1303

Leather Belt Specifications, Dec 6 p 1351

Leather Belting Makers' Association: Operations and Results, Oct 18 p 928

Leeds & Northrup Co.: Optical Pyrometer,* Aug 2 p 243

Lewis, Richard G.: Centennial of First Rolling Mill in United States, Sept 6 p 549

Lewis-Shepard Co.: Industrial Lift Truck for Heavy Loads, Dec 27 p 1526

War-Time Industrial Lift Truck,* Oct 18 p 927

Liberty Loan: Machinery Trade to Aid, Oct 4 p 849

Subscriptions, Oct 18 p 945; Oct 25 p 1023; Nov 1 p 1096; Nov 15 p 1193; Nov 22 p 1274

Youngstown Sheet & Tube Co.'s Campaign, Nov 15 p 1193

Liberty Mill Started, Carnegie, Oct 25 p 1022; Nov 1 p 1048

Liberty Ordnance Co.: Purchases Bridgeport Projectile Co., Oct 25 p 1001

Liberty Steel Co.: To Build Tin Plate Plant, Aug 30 p 478

Licenses: Articles Not Requiring, Oct 4 p 847

Export Situation, Oct 4 p 855

Forms for Export, Aug 23 p 440

Government Policy Announced, Oct 18 p 960

Import Trade Regulation, Dec 6 p 1354

Manufacture Under Enemy Aliens' Patents, Nov 8 p 1156

Terms of Import, Dec 6 p 1367

Traffic Executive to Issue, Dec 20 p 1485

Lighterage Charges: Higher, Dec 13 p 1459

Limestone: For Furnace Flux, 1916, Aug 30 p 521

Furnace, Taken for Camp Roads, Nov 29 p 1325

Locknut, Bolt and Washer Combination, Permanent Products Co.,* Dec 13 p 1413

Locomotives: Building (Editorial), Dec 27 p 1544

Orders, July 5 p 56; July 19 p 146; Aug 2 p 291; Sept 13 p 610; Nov 15 p 1225

Shortage in Pacific Coast States, Dec 27 p 1546

Lodge & Shipley Machine Tool Co.: Officers, July 19 p 170

London, W. J. A.: Standardization of Specifications for Small Turbines, Dec 13 p 1421

Long & Allstatter Co.: Chicago Men Buy Control of, Aug 30 p 484

Gate Shear, Large,* Sept 27 p 739

Louden, Herman P.: Tool Holders and Expanding Mandrel,* Nov 22 p 1241

Lovell, R. Goulburn: Coal Briquetted from Ashes or Dusts, July 26 p 223

Lubrication: Graphite,* Sept 13 p 596

Oil Cups as Substitute for Grease Cups, Nov 1 p 1055

Lubricator, Interstate Multiple Force Feed, Dec 27 p 1529

Lucey Mfg. Corporation: McLain Furnace Installation, Aug 23 p 462

Lufkin Rule Co.: Table of Tap Drills, Sept 6 p 531

Lundberg, Charles: Gier Pressed Steel Co. Expansion,* Aug 23 p 415

Luster-Jordan Co.: Lathe for Turning Torpedo Heads,* Aug 23 p 432

Lycopodium, German Substitute for, Nov 29 p 1309

Lyndon, George W.: Mechanics of the Chilled Iron Wheel, July 19 p 140

Lysholm Plate Punch Table,* Aug 23 p 431

M

McAdam, D. J., Jr.: Alternation Torsion Tests,* July 19 p 125

McDonald Mill Started, Oct 25 p 1006

McFarland and Harder:
Chromium, Copper and Nickel Alloys, July 5 p 26

McKinley Memorial Dedicated, Oct 11 p 893

McLain's System, Inc.:
Furnace for Houston Foundry, Aug 23 p 462

McMurray, Max:
President Cromwell Steel Co.,* Sept 20 p 681

Machine Tool Builders:
(See National Machine Tool Builders' Association)

Machine Tools:
Active Buying in Pittsburgh, Oct 18 p 942

British Order for, July 12 p 105

Experts for Supervision of, Oct 11 p 905

Forward Look in (Editorial), Nov 15 p 1198

Industry and War (Editorial), Oct 4 p 830

Merryweather, G. E., in Charge for Government, Oct 25 p 1026

Priority in (Editorial), Oct 25 p 1003

Scarce for Government Work, Dec 20 p 1514

Machine Works, W. W.:
Drilling Machine for Light Work,* Aug 2 p 254

Machinery:
American in Russia, July 5 p 26

Government to Buy, July 5 p 20

Norwegian Market for American, Aug 23 p 458

Scotland's Need After the War, Oct 25 p 985

Machinery Club of Chicago:
Opening of Club Rooms, Oct 4 p 831

Magnesite:
Grecian Exports, 1916, Dec 6 p 1401

Production, United States, 1916, Dec 6 p 1397

Magnet Steel Containing Chromium, Permanent, July 26 p 197

Mahon, James J.:
Manganese in Ordnance Steel, Aug 23 p 438

Mahoning Valley Blast Furnace, Activity in, Sept 6 p 545

Malleable Iron Discussion at Foundrymen's Convention, Oct 4 p 819

Man Power, Mobilizing (Editorial), Nov 29 p 1304

Management:
Cleveland Crane & Engineering Co.'s Annual Bonus Plan, Dec 27 p 1562

Economical Production of Small Cores,* Oct 11 p 878

Factory, Aug 23 p 428

Following Up Purchase Orders in Small Plants, Nov 29 p 1307

Moore Drop Forging Co. Adopts Group Insurance, Aug 30 p 479

New Departure Mfg. Co. Fostering the Shop Spirit,* Nov 29 p 1285

Planning Department in Modern Shops,* Sept 6 pp 537 and 584

Shepard Electric Crane & Hoist Co. to Insure Workers, Oct 11 p 885

Shop Dividends Due to Personnel Work,* Nov 1 p 1058

Simple System of Foundry Accounting,* Sept 20 p 682

Steel plant Electrical Safety Provisions, Oct 25 p 992

Visualizing Promises of Material Shipments,* Oct 11 p 865

Wage Dispensing Scheme, Aug 16 p 369

Welfare Work in Foundries,* Sept 20 p 666

Mandrel and Tool Holders, Loudon Expanding,* Nov 22 p 1241

Manganese:
American Company Shipping Brazilian Ore, Aug 23 p 458

Brazilian Exports, Nov 22 p 1264

Concentration of Low-Grade Ores, Sept 13 p 607

Co-operation in Problem (Editorial), Nov 8 p 1132; Nov 8 p 1158

Deoxidizing Basic Steel with a Saving of, Nov 29 p 1294

Germany's Supply, Nov 15 p 1189

In Ordnance Steel, Aug 23 p 438; Nov 1 p 1069; Nov 15 p 1198

In Steel Making, Aug 2 p 239

In the Basic Open Hearth (Editorial), Nov 29 p 1305

India's Ore Exports, Nine Months, July 5 p 29; Fiscal Years, Nov 1 p 1055

India's Ore Output, Dec 13 p 1459

Mining Engineers to Discuss, Sept 13 p 632

More Urgent Call for (Editorial), Aug 2 p 272

Ore Imports, April, July 5 p 8; May, July 12 p 86; June, Aug 30 p 514; July, Sept 27 p 777; August, Oct 18, p 965; September, Nov 22 p 1236;

Ore Mining Expansion, Dec 20 p 1508

Ore Output, 1917, Estimated, July 12 p 82

Ore Prices, Dec 6 p 1359

Ore Production, 1917, Estimated, Dec 27 p 1566

Our Steel Industry's Supplies, July 26 p 224

Pig Iron in the Open Hearth, High, Nov 29 p 1336

Present Status, Nov 29 p 1328

Problems, Oct 18, p 936

Record in Products (Editorial), Sept 6 p 548

Russian Ore Exports, 1916, July 5 p 29

Silico, and Carbon Electrodes, New Company to Make, Oct 4 p 849

Spain's Exports, First Half, 1917, Oct 25 p 1007

Stimulus to Mining (Editorial), July 12 p 90

Utilizing Domestic Supplies, Nov 29 p 1290

Virginia Ore, Investigating, Nov 29 p 1299

Virginia Ores, Oct 11 p 884

Manganiferous Ores in New Mexico for Spiegel, Dec 13 p 1460

Mansfield Sheet & Tin Plate Co.:
Operating New Sheet Mill, Oct 18 p 937

Manufacturers:
To Organize by Industries, Dec 6 p 1371

Views of Government's Attitude on Steel Prices, Aug 2 p 272

Manufacturers' Aircraft Association: Organized, Aug 9 p 347

Manufacturers' Associations:
(See National Conference of State Manufacturers' Association)

Manufacturing Industries to Be Classified for War Work, Nov 22 p 1231

Marchant Calculating Machine Co.:
Calculating Machine, Aug 30 p 522

Maritime Motor Car Co., Ltd.:
Controller for Hoisting Engines,* Nov 1 p 1057

Mark Mfg. Co.:
To Build Homes for Employees, Aug 30 p 514

Marshall Foundry Co.:
Buys Ingot Mold Department of Pittsburgh Iron & Steel Foundries Co., Nov 22 p 1271

Maryland Compulsory Work Law, Oct 4 p 853

Maskrey, A. E.:
Pickling Machine, Motor-Driven Vertical,* Nov 15 p 1187

Mason, Dr. William:
Alternating Stress Experiments on Steel,* Oct 11 p 874

Massillon Steel Casting Co.:
New Foundry, Oct 4, 799

Master Machine Tool Co.:
Lathe for Toolrooms, 13-In. Geared,* Oct 25 p 997

Mathews, Dr. John A.:
Magnet Steel Containing Chromium, July 26 p 197

Matthews Iron & Mining Co.:
Leases Ore Land, July 19 p 137

Mauland, T.:
High Sulphur Cast Iron, Dec 6 p 1366

Measuring Instrument, Scientific Hardness,* Nov 8 p 1119

Merchant Marine:
American, Nov 15 p 1174

New, Dec 6 p 1360

Merchants' and Manufacturers' Association:
Action on Government Control of Prices, Aug 9 p 315

Labor Problems Discussed, Aug 16 p 373

Organizing Baltimore Industries for War Work, Dec 27 p 1566

Meron, Frederic:
Factory Management, Aug 23 p 428

Wage Dispensing Scheme, Aug 16 p 369

Merryweather, G. E.:
In Charge of Machine Tools for Government, Oct 25 p 1026

Mesta Machine Co.:
Iversen Valves for Blowing Engines,* Sept 27 p 731

Metal Trades Association:
(See National Metal Trades Association)

Metal Deformation, Plastic, Nov 1 p 1066

Metals:
Alloy, Aug 23 p 427

General Electric Thermostatic,* Aug 9 p 320

Production of Secondary, United States, 1916, Nov 8 p 1126

Metallurgists Needed by Government, Aug 23 p 462

Metalwood Co.:
Press for Straightening Crankshafts,* Aug 2 p 250

Metric System:
Helping the Enemy, Oct 4 p 830

In Munitions Manufacture (Editorial), Sept 13 p 609

Meyer, Wilhelm:
Germany's Industrial Outlook After the War, July 19 p 127

Meyers, F. C.:
Better Methods Needed for Handling Freight, Dec 13 p 1434

Midland Electric Steel Co.:
To Install Booth-Hall Electric Furnace, Aug 30 p 519

Midvale Steel & Ordnance Co.:
Contract for Gogebic Ore, Aug 30 p 519

Dinkey, Alva C., President, Nov 15 p 1187

Quarterly Statement, Aug 9 p 342; Nov 15 p 1215

Work Stopped on Cambria Plate Mill, July 19 p 146

Miller, Dwight D.:
Electric Furnace in Non-Ferrous Industry, Nov 8 p 1122

Miller, W. Stuart:
British Exports of Commercial Steel, Oct. 25 p 1004

Milling Machines:
Cleveland Vise for,* Dec 6 p 1353

Moline Special Drilling and,* Nov 29 p 1297

Remington, Guard for Cutter on,* Nov 1 p 1065

Taylor & Fenn Vertical,* Nov 22 p 1241

Mineral Production, United States, 1916, Oct 11 p 909

Mining Engineers:
(See American Institute of Mining Engineers)

Mining Experiment Station, Aug 23 p 420

Mississippi Valley Iron Co.:
Lake Ore to St. Louis by Water,* Sept 13 p 587; Oct 25 p 1022

Missouri, Kansas & Texas Railroad:
Magnetic Separator in Coal Pulverizing Plant, Nov 1 p 1062

Mixer, Smith Chain-Driven Concrete, Dec 20 p 1475

Modern Foundry Co.:
Cutting Cost of Cupola Charging,* Dec 13 p 1411

Moldenke, Dr. Richard:
Foundry Problems, Sept 20 p 663

Moline Machinery Co.:
Milling and Drilling Machine, Special,* Nov 29 p 1297

Moller, J. A.:
Ball Bearing Center for Shell Lathes,* Dec 6 p 1351

Saw Attachment for Shaping Machines,* Aug 2 p 268

Moore Drop Forging Co.:
Group Insurance, Aug 30 p 479

Moore, Enos:
Devices to Facilitate Shell-Making,* Aug 2 p 260

Moore, H. F.:
Oxy-Acetylene Welded Joints, Strength, Dec 20 p 1471

Morgan Construction Co.:
Motor-Driven Wire Drawing Machines,* Aug 16 p 377

Morgans, T. D.:
Investigation of Acid Open-Hearth Heat,* Oct 18 p 930

Morris Machine Tool Co.:
Radial Drilling Machine Tilting Table,* Dec 6 p 1355

Moss, Sanford A.:
Turbo Units Versus Gas Engines, Sept 6 pp 542 and 583

Motorcycles, Standardizing, July 12 p 82

Motors:
Crocker-Wheeler Squirrel Cage Induction,* Oct 11 p 869

Electric in Steel Mills,* Nov 1 pp 1045 and 1105

Liberty, First Completed, Oct 18 p 938

Rating Rolling Mill, Nov 8 p 1170

Reliance Direct Current,* July 19 p 133

Use of Liberty Limited, Nov 29 p 1331

Waukesha Motor Co. Delivers First Liberty in Record Time, Oct 18 p 967

Movable Platform for Assembling Springs, Detroit,* Oct 18 p 938

Munitions:
And Ordnance Investigation, Defective, Sept 13 p 633

Canadian Buying, July 5 p 19

General Munitions Board to Systematize Shipments, July 19 p 124

Machines for Making,* July 19 p 138

Progress in Supplying, Dec 20 p 1472; Dec 27 p 1548

Speeding Shipments for War Work, Dec 6 p 1400

White Grinding Wheel for Plants, Aug 9 p 317

Munitions Board, General:
To Systematize Shipments, July 19 p 124

Murphy, H. D.:
Following Up Purchase Orders in Small Plants, Nov 29 p 1307

Helping the Enemy, Oct 4 p 830

Pedagogical Influence, July 26 p 230c

Wage Advances, Oct 11 p 890

Myers, David M.:
Inefficiency in the Boiler Room, Dec 27 p 1538

Nail, Wire, Trade and Price Regulation, July 19 p 146

National Association of Brass Manufacturers:
Meeting, July 12 p 87

National Association of Ornamental Iron and Bronze Manufacturers:
Annual Meeting, Sept 27 p 741

National Association of Purchasing Agents:
Convention Proceedings, Oct 11 p 911; Oct 25 p 992

National Association of Waste Material Dealers:
Co-operation Needed, Oct 18 p 963

National Conference of State Manufacturers' Associations:
Meeting, Dec 6 p 1363

National Electric Welder Co.:
Purchased by Federal Machine & Welder Co., Oct 11 p 882

National Foreign Trade Council:
Convention Announcement, Dec 20 p 1507

Price Fixing and Production, Nov 29 p 1288

National Founders' Association:
Convention Proceedings, Nov 15 p 1195; Nov 22 p 1242

National Implement and Vehicle Association:
Convention, Oct 25 p 996

National Iron Works, Ltd.:
Centrifugal Cast-Iron Pipe,* Nov 29 p 1299

National Laboratory for Physical Science and Mechanics in France, Aug 9 p 311

National Machine Tool Builders' Association:
Convention Proceedings, Nov 1 p 1092; Nov 8 pp 1114 and 1167

National Metal Trades Association:
Boston Branch to Hold a "Win-the-War" Meeting, Nov 15 p 1186

Cincinnati Outing, July 19 p 172

National Safety Council:
Convention Announcement, Aug 23 p 435

Convention Proceedings, Sept 13 p 613; Sept 20 p 690

National Smoke Prevention Association:
Convention, Oct 4 p 851

National Supply and Machinery Dealers' Association:
Convention, Nov 8 p 1124

To Meet in Cleveland, Nov 29 p 1333

National Tube Co.:
Discount Cards, New, Nov 8 p 1157

Kewanee Plant Sold to Walworth Mfg. Co., July 12 p 113; Aug 9 p 341

Three-in-One Piping,* Oct 25 p 993

Work Started on New Plant, July 12 p 91

Naval Employees Increasing, July 19 p 145

Naval Ordnance, Year's Developments in, Dec. 20 p 1486

Navy Department:
Additional Appropriations, July 27 p 203

Bidders to Be Given Fair Treatment, Sept 13 p 595

Can Build 32 Ships at a Time, July 12 p 105

Fixing Prices for Contracts, Dec 13 p 1420

Huge Program, Oct 11 p 915

Norfolk Yard Appropriation, July 19 p 172

Projectile Plant, July 12 p 87

Pushing Destroyers and Merchant Ships, Aug 2 p 258

Specifications for Steel Castings, July 12 p 83

Washington Shops to Cost \$7,500,000, July 26 p 198

Negro Labor, Milwaukee Opposed to, Nov 15 p 1189

Negro Migration, July 12 p 91

Neilson-Barton Chuck Co.:
To Manufacture Eclipse Chucks, Sept 20 p 683

Nelson, B. S.:
Burning Fuel Oil, July 19 p 165

Nesbitt, C. E.:
Silica Brick Requirements, Sept 6 p 533

New Departure Mfg. Co.:
Field Day, Oct 4 p 853

Fostering the Shop Spirit,* Nov 29 p 1285

New England:
Fondry Activity in War Period,* Sept 20 pp 650 and 724

New Foundries,* Sept 20 p 645

New England Iron and Hardware Association:
Annual Outing, Sept 27 p 743

New Jersey Shipbuilding Co.:
Consolidated with Pusey & Jones Shipbuilding and Pennsylvania Shipbuilding Companies, Dec 20 p 1503

Newark Engineering & Refrigerating Co.:
Filing Machine, Special,* Nov 8 p 1127

Newbold, R. L., & Son Co.:
Plate Shearing Machine,* Dec 6 p 1362

Newcomb, Robert E.:
Safe Loads of Crane Chains and Slings,* Nov 22 p 1238

Newport News Shipbuilding & Dry Dock Co.:
Instruction School in Shipbuilding, Dec 20 p 1477

Newton, Edmund:
Utilizing Domestic Manganese Supplies, Nov 29 p 1290

Nichrome Castings That Withstand High Temperatures,* Aug 2 p 256

Nickel:
Anodes Reclaimed by Welding, Scrap,* Aug 2 p 245

In Steel Making, Sept 13 p 594

Steel, Properties and Structure,* July 12 p 67

Niles-Bement-Pond Co.:
Injunction Against Molders' Union, Oct 18 p 969

To Build New Plant, Nov 29 p 1289

Nitrate Plant at Sheffield, Ala., Government, Oct 25 p 998

Nitre Cake:
For Pickling Brass, Oct 25 p 991

For Pickling Sheets, Dec 6 p 1395

Nitrogen, Bucher Process for Fixation of Atmospheric, July 26 p 221

Noble & Westbrook Mfg. Co.:
Automatic Surface Grinding Machine,* Dec 6 p 1359

Graduating Machine for Circular Work,* Dec 27 p 1539

Non-Essential Industry Problem, Nov 29 p 1327

Norbon Engineering Co.:
Plate Punch Table,* Aug 23 p 431

Norris, G. L.:
Vanadium in Steel Making,* July 19 p 134

Northwestern Ordnance Co.:
Organized, Aug 9 p 327

Norway:
Electric Furnace in the Iron Industry, Nov 15 p 1226b

Imports and Exports of Steel and Iron, 1916, Sept 20 p 711

Market for American Machinery, Aug 23 p 458

Tin Plate Shortage, Sept 13 p 629

To Make Electrodes, Dec 6 p 1402

Nova Scotia:
Iron and Steel Output, 1916, Sept 13 p 629

Nova Scotia Steel & Coal Co.:
Output Second Quarter, Oct 25 p 1019

Nulsen, F. E.:
Malleable Iron and Its Uses, Discussion, Nov 8 p 1120

Nuttall, R. D., Co.:
One-Piece Machined Expansion Joint,* July 26 p 198

Nye, Ralph D.:
Service from Electric Mills, Oct 18 p 966

O *

Obituary:

Adams, Aquila, Nov 1 p 1095
Adams, Harry C., Aug 23 p 460
Allen, Harry L., Sept 20 p 714
Babcock, William I., Aug 9 p 347
Bee, William G., July 19 p 166
Bennett, John, July 5 p 53
Biefield, Richard, Sept 27 p 781
Bigelow, Col. F. L., July 5 p 53
Blakeslee, Sherman, Nov 1 p 1095
Blandy, Elwood B., Sept 20 p 714
Blickensderfer, G. C., Aug 23 p 460
Bowe, Sergt. A. P., Nov 1 p 1095
Brock, Horace, Aug 9 p 347
Camp, James E., Aug 30 p 519
Canfield, F. D., Jr., Oct 11 p 913
Connor, Thomas G., Aug 30 p 519
Covel, Benjamin F., July 19 p 166
Cregar, J. W., Dec 20 p 1505
Dain, Joseph, Sr., Nov 8 p 1149
Dale, Russell, Sept 27 p 781
Dangeleisen, R. B., Nov 29 p 1322
Davis, Frank W., Aug 23 p 460
DeVilbiss, Dr. Allen, Oct 11 p 913
Dick, John, Dec 6 p 1399
Diehl, Emery H., Nov 29 p 1322
Evans, Thomas, Dec 13 p 1455
Fears, Albert S., Sept 6 p 564
Firmstone, Frank,* July 12 p 112
Fischer, Jacob, Aug 9 p 347
Florsheim, Simon, Dec 13 p 1455
Floyd, Edward D., Oct 25 p 1025
Fothergill, H. R., July 26 p 223
Ganz, Albert F., Aug 9 p 347
Gaul, Henry, Dec 6 p 1399
Gerson, Isaac, Nov 1 p 1095
Guenther, W. L., Dec 20 p 1506
Haas, Isaac G., Aug 9 p 347
Haines, John L.,* Dec 20, 1505
Hall, G. Burton,* Sept 27 p 781
Hall, Norman, Oct 4 p 849
Hawley, Frederick B., July 26 p 223
Henning, Richard, Dec 6 p 1399
Hill, Hal H., Nov 8 p 1149
Horrocks, Joshua, Nov 8 p 1149
Jewell, Lyman B., Nov 29 p 1322
Kachelmacher, N. L. C., July 19 p 166
Kearfott, William D., Dec 6 p 1399
Keister, Abraham L., July 5 p 53
Kekewich, Hanbury, Dec 6 p 1399
Kennedy, J. C., July 19 p 166
King, George W., Sept 20 p 714
Klein, Charles J., Dec 27 p 1562
Kneisel, Arthur, Aug 30 p 519
Kunze, Joseph V., July 12 p 112
Lean, D. R., Dec 6 p 1399
Mathias, Davis S., Dec 13 p 1455
Meacham, Robert D., Dec 20 p 1506
Melvin, William W., Sept 27 p 781
Miller, Orlando, Nov 22 p 1271
Moltrup, William, Nov 22 p 1271
Morgan, Joseph,* Dec 20 p 1505
Nortmann, Valentine, July 19 p 166
Ormston, A. J., Jr., Aug 16 p 408
Perry, William H., Aug 30 p 519
Pugh, Job T., Dec 6 p 1399
Redshaw, Moses W., Aug 30 p 519
Reid, Joseph, Nov 1 p 1095
Richards, William D., Oct 11 p 913
Rider, George S., Sept 20 p 714
Ridgway, Craig, Oct 11 p 913
Riker, Henry C., July 12 p 112
Robinson, George M., July 5, p 53
Roebber, Dr. E. F.,* Oct 25 p 1025
Sachs, N. V., Nov 8 p 1149
Saward, F. E., Dec 13 p 1455
Saxe, William A., Dec 6 p 1399
Schley, Grant B., Nov 29 p 1322

Scofield, William C., July 12 p 112
Shanahan, John W., Aug 9 p 347
Sheppard, W. H., Dec 20 p 1506
Sidney, Leicester P., Dec 6 p 1399
Smith, Albert S., Sept 6 p 564
Smith, Robert S., Dec 6 p 1399
Souther, Henry,* Aug 23 p 459
Spuck, John, July 19 p 166
Starrett, Theodore, Oct 11 p 913
Stehman, A. W., Nov 22 p 1271
Stehn, Otto P., Aug 23 p 460
Stevenson, C. G., Sept 13 p 632
Stewart, Frank L., Oct 25 p 1025
Steyler, Edmund, Oct 11 p 913
Stoddard, John W., Sept 27 p 781
Van Alen, C. G., Oct 18 p 968
von Philp, Casimir, July 12 p 112
Walker, W. Lester,* Oct 11 p 913
Weston, Lon, Sept 13 p 632
Westphal, Paul, Oct 18 p 968
Williams, Roy A., Dec 6 p 1399
Wood, James W., July 12 p 112
Woodward, J. H., Dec 20 p 1005
Youle, George E., July 26 p 223
Zeeve, Joshua W., Oct 25 p 1025
Zimmers, Frank H., Oct 25 p 1025
Zolinger, Louis F., Nov 8 p 1149

Oesterreicher, Sandor I.:
Cast Steel Welded Ships, July 26 p 230b

Oil:
Burning of Fuel, July 19 p 165
Cooler, Griscom & Russell for Quenching and Cooling,* Oct 25 p 999
Cups, Substitute for Grease Cups, Nov 1 p 1055
New Way to Burn Crude,* Nov 1 p 1049

Ore:
Analysis, July 12 p 85
Brazilian Iron, Nov 22 p 1237
Brazilian Manganese Exports, Nov 22 p 1264
Breitung Properties, Sept 6 p 563
British Iron Production, 1916, Sept 20 p 655
British Iron Report, Aug 2 p 242
British Need of Iron, Dec 6 p 1371
British Restrictions on Chrome, Sept 20 p 655
Chrome, Shipments from California, Sept 27 p 781
Chrome, United States Production, 1916, Sept 13 p 603
Concentration of Low-Grade Manganese, Sept 13 p 607
Electric Smelting of Iron in Sweden, Sept 13 p 605
Germany and French Lorraine Iron Deposits, Nov 29 p 1298
Germany's Supply of Iron and Manganese, Nov 15 p 1189
Hill Properties Taken Over by M. A. Hanna & Co., July 19 p 172
Imports of Ferroalloy to Be Controlled, Dec 20 p 1500
India's Manganese Exports, Nine Months, July 5 p 29; Fiscal Year, Nov 1 p 1055
India's Manganese Output, Dec 13 p 1459
Iron, Agreed Prices, Sept 27 p 756
Iron, for Thropp Furnaces, Nov 29 p 1289
Iron Imports, Eight Months, 1917, Nov 22 p 1251
Iron Production in Missouri, Aug 23 p 432
Lake, to St. Louis by Water,* Sept 13 p 587; Oct 25 p 1022
Manganese Imports, April, July 5 p 8; May, July 12 p 86; June, Aug 30 p 514; July, Sept 27 p 777; August, Oct 18 p 965; September, Nov 22 p 1236
Manganese Mining Expansion, Dec 20 p 1508
Manganese Output, 1917, July 12 p 82; Dec 27 p 1566
Manganese Prices, Dec 6 p 1359
Manganiferous in New Mexico for Spiegel, Dec 13 p 1460

Republic Iron & Steel Co.'s Storage Yard for,* Nov 22 p 1234
Rushing Shipments, Nov 1 p 1047
Russian Manganese Exports, 1916, July 5 p 29
Russia's Iron Surplus, Oct 25 p 999
Spain's Iron and Manganese Exports First Half, 1917, Oct 25 p 1007
Spain's Output, 1916, Oct 11 p 917
Virginian Manganese, Oct 11 p 884
Virginian Manganese, Investigating, Nov 29 p 1299

Ordnance:
Equipment Inspectors Wanted, Sept 13 p 600
Investigation of Defective Munitions and, Sept 13 p 633
Progress in Supplying, Dec 20 p 1472; Dec 27 p 1548
Year's Developments in Naval, Dec 20 p 1486

Ordnance Department, Needs (Editorial), Oct 25 p 1004

Oregon Iron & Steel Works:
Purchased by William Piggot, July 5 p 57

Orenstein-Arthur Koppel Co.:
Storage Battery Truck with Cradle Dump,* July 12 p 73

Oriental Steel Mfg. Co.:
Japanese Company, Sept 20 p 668

Osage Iron & Steel Co.:
Merged with Texas Rolling Mill Co., July 5 p 35

Ott Grinder Co.:
Grinding Machine Cross Feed, Improved,* Aug 2 p 254
Valve Seat Grinding Machine,* Nov 29 p 1289

Oven, Electric, for Baking Cores,* Sept 20 p 652

Oxide of Zinc, Manufacture of,* Sept 13 p 598

Oxy-Acetylene Welded Joints, Strength, Dec 20 p 1471

P

Pacific Car & Foundry Co.:
Merger of Seattle Car & Foundry and Twohy Brothers Companies, July 12 p 106

Pacific Coast Steel Co.:
Purchases Oregon Iron & Steel Works, July 5 p 57

Pacific Electro Metals Co.:
Silico-Manganese Manufacture, Aug 16 p 383; Oct 4 p 849

Parker, James H.:
High-Speed Steel, Sept 20 p 655

Parker, S. W.:
Properties and Structure of Nickel Steel* July 12 p 67

Parry, W. H.:
Brass Reclaiming Troubles, Oct 18 p 933

Patch, S. B., & Sons Co.:
Grinding Machine, Double-Spindle 18-In.,* Sept 13 p 591

Patents, Manufacture Under Enemy Aliens', Nov 8 p 1156

Patton, A.:
Roll Scale in Bessemer Process, July 12 p 80

Paulsson, Axel:
Electric Arc of Rennerfelt Furnace, Dec 20 p 1484

Pauly, K. A.:
Rating Rolling Mill Motors, Nov 8 p 1170

Pawling & Harnischfeger Co.:
Cranes for Flexible Loads,* Dec 20 p 1471

Payne, Thomas F.:
Pipe Corrosion in Buildings, Nov 29 p 1298

Peat:
Fuel Boiler Economy with, Aug 16 p 405

Urge Sales Agency, July 26 p 236

Pedagogical Influence, July 26 p 230c

Peerless International Corporation:
Export Company, Aug 30 p 499

Peerless Truck & Motor Corporation:
Earnings, Ten Months, Dec 27 p 1539

Penn Seaboard Steel Corporation:
New Foundry, Oct 4 p 812
To Build Plate Mill, Dec 20 p 1506

Pennsylvania Shipbuilding Co.:
Consolidated with Pusey & Jones
Shipbuilding and New Jersey
Shipbuilding Companies, Dec 20 p 1503

Permanent Products Co.:
Combination Bolt, Washer and
Locknut,* Dec 13 p 1413

Petty, D. M.:
Economy from Motor-Driven Mills,*
Sept 13 p 592

Phalen, W. C.:
Manganese Ore Mining Expansion,
Dec 20 p 1508

Phillips Sheet & Tin Plate Co.:
Detroit Office, Aug 16 p 401

Phillips, W. Vernon:
Iron and Steel Scrap, Nov 1 p 1106

Phoenix Roll Works:
Taken Over by Pittsburgh Rolls
Corporation, July 26 p 218;
Aug 2 p 293

Phosphor Bronze Manufacture, July
26 p 230d

Pickling:
Effect on Strength of Steel, Oct 16
p 964

Maskrey Motor-Driven Vertical Ma-
chine for,* Nov 15 p 1187

Nitre Cake for Brass, Oct 25 p 991

Nitre Cake for Steel Sheets, Dec 6
p 1395

Pierce, John B.:
Bequest to Employees, July 12 p
113

Piez, Charles A.:
General Manager of Shipbuilding,
Dec 20 p 1502

Pig Iron:
Alabama, to Chicago by Water,
July 19 p 167

British Output of Basic, Dec 13 p
1459

British Output Increasing, Sept 6
p 545

Canadian Production, First Half
1917, Oct 4 p 801

Confusion on Costs (Editorial),
Oct 11 p 889

Electric, in War Time, Oct 11 p
886

Fixed Prices Compared with Aver-
ages of 1911-1914, Oct 4 p 833

Freight Rates, New, Aug 30 pp 495
and 522

Freight Rates to Be Adjusted
Again, Sept 6 p 570

Freight Rate to Canada, Dec 6 p
1395

From Scrap Steel,* Aug 30 p 485;
Editorial, Aug 30 p 497; Dis-
cussion, Oct 11 p 886

German Output, May, July 19 p 147

High-Manganese in the Open-
Hearth, Nov 29 p 1336

India's Output, 1916, Aug 30 p 501

Less, But More Steel (Editorial),
Nov 15 p 1197

Londing of Cars, Sept 6 p 551

Manufacturers to Work with the
Government, July 5 p 32

Monthly Production,* July 5 p 34;
Aug 9 p 328; Sept 6 p 551; Oct
4 p 850; Nov 8 p 1134; Dec 6
p 1376

Norway's Exports and Imports,
1916, Sept 20 p 711

Nova Scotia's Output, 1916, Sept
13 p 629

Output in Youngstown District,
Aug 30 p 517

Price Schedule Recommended, Oct
11 p 915

Prices, Agreed, Sept 27 p 756; Oct
25 p 1026; Nov 8 p 1154

Reservoir for, Nov 29 p 1306

Russia's Output, 1916, Oct 11 p 912

Shipping by New Water Route,*
Aug 16 p 373

Swedish Output, 1916, Oct 25 p 991

United States Output, First Half
1917, Aug 16 p 377; Editorial,
Aug 16 p 381

Warrants, July 12 p 71

Warrants Canceled, Last, Dec 13 p
1455

Piggot, William:
Purchases Oregon Iron & Steel
Works, July 5 p 57

Pilling & Crane:
Partnership Dissolved, Aug 9 p 350

Pilnacek, Edward A.:
Flash Annealing of Large Projec-
tiles,* Aug 30 p 479

Pin-Making Machine, Detroit Auto-
matic,* July 19 p 131

Pipe:
Boiler Specifications, July 5 p 12

Cast-Iron, Life of, July 19 p 167

Cast-Iron Prices, Fixed, Dec 27 p
1543

Centrifugal Cast-Iron,* Nov 29 p
1299

Corrosion in Buildings, Nov 29 p
1298

Example of Three-In-One,* Oct 25
p 993

Iron Cast in Metal Molds,* Sept 20
p 656

Made of Electrolytic Iron in
France, Dec 6 p 1402

U. S. Standard Thread Recom-
mended for, July 19 p 171

Welding 10 Miles by Prest-O-Lite
Process,* July 12 p 85

Pittsburgh Export Co.:
Plans, Nov 15 p 1214

Pittsburgh Filter Mfg. Co.:
Consolidated with Riverside Engine
& Machine Co., July 5 p 13

Pittsburgh Iron & Steel Foundries
Co.:
Ingot Mold Department Sold to
Marshall Foundry Co., Nov 22
p 1271

Pittsburgh Rolls Corporation:
Organized, July 26 p 218; Aug 2 p
293

Pittsburgh Steel Co.:
Annual Report, Nov 1 p 1089

Pittsburgh Steel Products Co.:
Contracts, Aug 16 p 384
To Build New Plant, July 12 p 105;
Aug 9 p 347

Plague of Committees, Dec 27 p 1537

Plates:
Changes in Boiler Specifications,
July 12 p 79

Exports of Steel, Five Months, Aug
9 p 349; Year, 1917, Nov 15 p
1225

For Japan, Nov 15 p 1221
Must Win the War (Editorial),
July 5 p 30

Platinum:
World's Supply, Oct 4 p 803

Plumley, Stuart:
Oxy-Acetylene Cast Iron Welds,
Dec 27 p 1538

Pomerene Bill:
To Control Iron and Steel Prices,
Aug 30 p 482; Oct 4 p 796;
Nov 29 p 1332; Dec 6 p 1375

Poole Engineering & Machine Co.:
To Make Naval Guns, Dec 27 p 1538

Pope, Henry F.:
Malleable Iron and Its Uses, Nov 1
p 1105

Portable Machinery Co.:
Scoop Conveyor, Motor-Driven,*
Nov 29 p 1295

Portugal:
New Steel Plant to Be Built, July
19 p 146

Pratt, Dr. E. E.:
Resigns from Commerce Bureau,
July 19 p 147

Presses:
Bibliography on Hydraulic Forging,
Dec 20 pp 1480 and 1522

Harris Automatic Multiple Plun-
ger,* July 2 p 9

Metalwood for Straightening
Crankshafts,* Aug 2 p 250

Watson-Stillman Crankpin For-
cing,* Nov 8 p 1169

Prest-O-Lite Co.:
Scrap Nickel Anodes Reclaimed by
Welding,* Aug 2 p 245
Welding 10 Miles of Pipe,* July 12
p 85

Prices:
And Extras on Steel, Fixed, Sept
27 p 756; Oct 25 p 1026; Nov 1
p 1074; Nov 8 pp 1154 and
1157; Nov 15 pp 1218 and
1222; Nov 22 p 1268; Dec 27 pp
1542 and 1564

Billets, Agreed, Oct 18 p 944; Oct
25 p 1026

Bituminous Advanced, Nov 1 p 1095

Bonds and Taxes (Editorial), Sept
20 p 686

British Scrap, Sept 13 p 613

British Steel, Maximum for, July
19 p 171

By-Product Coke in Chicago Dis-
trict, Nov 29 p 1322

Cast-Iron Pipe, Fixed, Dec 27 p
1543

Coal, Government Controversy
Over, July 5 p 33

Coke, Agreed, Sept 27 p 756; Nov
22 p 1273

Coke, Maximum in Italy, Sept 13
p 626

Consumers' Interest in Iron and
Steel, July 26 p 229

Consumers' Opinions on Fixed, Oct
11 p 892; Nov 15 p 1175

Contract Foundry Iron Less Than
Half Current Market, Sept 6 p
549

Contracts and Fixed (Editorial),
Oct 11 p 888

Control Enforceable (Editorial),
Oct 18 p 941

Copper, Agreed, Sept 27 p 756

Finished Materials, Agreed, Sept 27
p 756; Oct 25 p 1026; Nov 1
p 1074; Nov 8 p 1154; Nov 15
p 1222; Nov 22 p 1268; Dec 27
p 1542

Fixing, and Maximum Output (Edi-
torial), July 12 p 88

Fixing and Production, Nov 29 p
1288

Fixing by Edict or Agreement?
Oct 11 p 868

Fixing for Naval Contracts, Dec 13
p 1420

Fixing in England (Editorial),
July 19 p 143

Further Government Control Fa-
vored, Sept 20 p 709

German Steel, July 19 p 159

Government and Iron and Steel,
Nov 29 p 1332

Government Decision Expected This
Week, Sept 20 p 712

Illinois Manufacturers Ask Infor-
mation on Government Steel,
Oct 4 p 833

Iron Ore, Agreed, Sept 27 p 756

Manganese Ore, Dec 6 p 1359

Manufacturer's View of Govern-
ment's Attitude on Steel, Aug
2 p 272

Pig Iron, Fixed, Sept 27 p 756; Oct
25 p 1026; Nov 8 p 1154

Pig Iron, Fixed, Compared with
Averages of 1911-1914, Oct 4 p
833

Pig Iron Schedule Recommended,
Oct 11 p 915

Pomerene Bill to Control Iron and Steel, Aug 30 p 482; Oct 4 p 796
 Producers' Opinions on Fixed, Sept 27 pp 757 and 778
 Regulation at Hand (Editorial), July 19 p 142
 Regulation of, or Conditions (Editorial), July 26 p 200
 Revision Jan. 1 (Editorial), Nov 1 p 1071
 Scrap Iron and Steel, Fixed, Nov 8 p 1154; Dec 27 p 1543
 Scrap, New, Explained, Dec 27 p 1546
 Semi-Finished Materials, Agreed, Oct 18 p 944; Oct 25 p 1026; Nov 15 p 1218; Dec 27 p 1543
 Situation at Washington, Oct 4 p 854
 Steel Casting, Fixed, Dec 27 pp 1542 and 1564
 Steel, Fixed (Editorial), Sept 27 p 752; Editorial, Oct 18 p 940
 Steel, Fixed, Compared with Averages of 1911-1914, Oct 4 p 833
 Steel Products, Working Out, Oct 4 p 832
 Steel, Readjustment, July 19 p 168
 Steel to Remain Unchanged, Dec 13 p 1452; Dec 27 p 1547
 Steel, Varying, Favored by the Government, Sept 13 p 604
 Table of Fixed, Oct 25 p 1026
 Tin Plate, Fixed, Nov 22 p 1268; Nov 29 p 1331
 Unwise Tinkering (Editorial), Dec 6 p 1372
 Warehouse, Fixed, Nov 15 p 1223
 Wire Nail Trade and Regulation, July 19 p 146

Priority:
 Bill Passed, Aug 16 p 403
 In Steel Orders, Sept 27 p 751

Producer Gas:
 Use Without Regenerators,* Aug 2 p 246

Production Statistics:
 Austria-Hungary's Steel Output, 1916, July 5 p 15
 British Iron Ore, 1916, Sept 20 p 655
 British Pig-Iron Output Increasing, Sept 6 p 545
 Canadian Iron and Steel, First Half 1917, Oct 4 p 801
 Chrome Ore, United States, 1916, Sept 13 p 603
 Coal, United States, 1916, Aug 16 p 376
 Copper Output, 1916, Dec 6 p 1371
 Dominion Steel Corporation, June, July 19 p 127
 Electric Steel, July 19 n 171
 Ferromanganese Supplies, Dec 6 p 1352
 Fluorspar, United States, 1916, Aug 23 p 421
 German Pig Iron and Steel, May, July 19 p 147
 India's Pig Iron Output, 1916, Aug 30 p 501
 India's Steel Output, 1915-16, Sept 13 p 632
 Ingot Output, United States, Nine Months, 1917, Oct 11 p 891; Ten Months, Nov 15 p 1200; November, Dec 13 p 1457
 Iron Ore in Missouri, Aug 23 p 432
 Japan's Copper Output, 1916, July 26 p 230c
 Lake Superior Ore, 1916, Aug 23 p 459
 Lead, United States, First Half 1917, Sept 6 p 583; Nov 29 p 1303
 Less Pig Iron but More Steel (Editorial), Nov 15 p 119
 Magnesite Output, United States, 1916, Dec 6 p 1397
 Manganese Ore, 1917, Estimated, July 12 p 82; Dec 27 p 1566

Mineral Output, United States, 1916, Oct 11 p 909
 Munition Steel in India, Aug 16 p 375
 Nova Scotia Iron and Steel, 1916, Sept 13 p 629
 Nova Scotia Steel & Coal Co.'s Output, Oct 25 p 1019
 Pig Iron and Steel Ingots in Youngstown District, Aug 30 p 517
 Pig Iron, United States, First Half 1917, Aug 16 p 366
 Russia's Iron and Steel Output, Oct 11 p 912
 Secondary Metals, United States, 1916, Nov 8 p 1126
 Spain's Steel and Ore Output, 1916, Oct 11 p 917
 Spelter, United States; 1916, July 19 p 170; First Half 1917, Nov 1 p 1061; Third Quarter, Nov 22 p 1265
 Sulphate of Ammonia, United States, 1916, July 19 p 137
 Swedish Iron Ore and Steel, 1916, Oct 25 p 991
 Tin Plate, Estimated, 1918, Nov 15 p 1223
 Tin Plate Output, United States, Aug 30 p 478
 Tin Plate, United States, 1916, Oct 11 p 877
 World's Copper Output, July 26 p 199

Profit Paring, Danger in (Editorial), Aug 30 p 496

Profits:
 Excess Law Attacked, Nov 29 p 1296
 Government Cost—Plus System Severely Criticized, Sept 27 p 728
 Proposed Changes in Excess Law, Dec 6 p 1370
 Rulings on Excess, Dec 20 p 1481
 Steel, by Processes (Editorial), July 26 p 201

Projectiles:
 Bids, Aug 23 p 439
 Flash Annealing of Large,* Aug 30 p 479
 Naval Plant, July 12 p 87

Proving Ground in Illinois, Government, Aug 9 p 323

Puddlers' Wages Advanced, Nov 15 p 1189

Pugh, John D.:
 Hot Metal Car,* Dec 6 p 1361

Pulleys:
 American Special Split Steel, Aug 30 p 522
 Dunbar Variable Speed,* Sept 6 p 535

Pumps, Steam Turbine for Boiler Feed, Aug 9 p 318

Punch Table, Lysholm Plate,* Aug 23 p 431

Punching Machine, Ironton Double Plate,* Aug 9 p 321

Purchases:
 Central Control Asked for Government, Oct 11 p 869
 Following Up Orders in Small Plants, Nov 29 p 1307

Purchasing Agents:
 (See National Association of Purchasing Agents)

Pusey & Jones Shipbuilding Co.:
 Consolidated with Pennsylvania Shipbuilding and New Jersey Shipbuilding Companies, Dec 20 p 1503

Pyle-National Co.:
 Plant Description,* Aug 16 p 361

Pyrometers:
 Brown, Automatic Control of High Temperature,* Dec 20 p 1478
 Engelhard Protective Tube for Thermocouples, Nov 1 p 1063
 Leeds & Northrup Optical,* Aug 2 p 243

Q

Quenching Experiments and Physical Properties, Forging, July 12 p 111

R

Rack for Hammers, Cutters and Sledges in Youngstown Plant,* Dec 13 p 1413
 Radio Equipment, Kilbourne & Clark to Build, July 5 p 57

Railroads:
 Belgian, Aug 16 p 383
 Demurrage Rules in Canada Revised, Aug 16 p 368
 Disagree on Freight Rates, Aug 2 p 250
 Eastern Pool (Editorial), Dec 6 p 1373
 Equipment Demand, Oct 18 p 958
 Fabrication in Transit, Oct 4 p 807
 Freight Congestion, Prospects of (Editorial), Aug 23 p 437
 Freight Rates Advance Case, Nov 8 p 1133, Nov 15 p 1225
 Freight Service 26 Per Cent Greater, Aug 23 p 454
 Future Status (Editorial), Dec 13 p 1433
 Government Ownership Discussed, Oct 25 p 1007
 Government to Invoke Authority in Case of Strike, Nov 22 p 1273
 Higher Freight Rates on Iron and Steel for Western Roads, Dec 6 p 1374
 Higher Transcontinental Freight Rates Asked, Nov 1 p 1095
 Increased Efficiency, Aug 16 p 377
 Light Rail Freight Rate Decision, Nov 1 p 1052
 New Mexico Central Bought by Federal Export Corporation, Oct 18 p 965
 New Problems, July 26 p 226
 Pig Iron Freight Rate to Canada, Dec 6 p 1395
 Pig Iron Loading, Sept 6 p 551
 Prouty, Judge, on Caution in Regulation of (Editorial), Dec 27 p 1544
 Rate Decision, July 5 p 14
 Readjustments of Freight Rates in Central Territory, Dec 13 p 1455
 Securities and Pooling (Editorial), Dec 6 p 1374
 To Ask for Advance in Freight Rates, Oct 18 p 939
 To Be Operated as One System East of Chicago, Nov 29 p 1308
 To File Proposed Freight Rate Increase, Nov 29 p 1294
 To Have New Hearing on Freight Rates, Oct 25 p 1005
 Transportation Efficiency Increased, Oct 25 p 1026

Rails:
 Exports Five Months, 1917, Aug 9 p 345; Eight Months, Dec 20 p 1504
 Light, Freight Rate Decision, Nov 1 p 1052
 Shortage of 10,000,000 Tons,* Dec 27 p 1525

Rawdon, Henry S.:
 Unusual Structures of Wrought Iron,* Sept 6 p 538

Read, Thomas T.:
 Shop Dividends Due to Personnel Work,* Nov 1 p 1058

Reading Steel Casting Co.:
 Open-Hearth Furnace Added, Dec 6 p 1401

Reamers and Taps, Schoenert,* July 19 p 133

Record of Plant Equipment, Continuous, Aug 23 p 438

Reel, Cincinnati Automatic Drop Light Extension,* Dec 27 p 1539

Refractories:
For Steel Furnaces, Sept 27 p 731
In Steel Industry, Aug 2 p 248

Refractory:
Fused Bauxite as a, July 12 p 82
Plant Tests for Brick, Nov 29 p 1293

Reliance Electric & Engineering Co.:
Motor for Mill Service, Direct Current,* July 19 p 133

Remington Typewriter Works:
Milling Cutter Guard,* Nov 1 p 1065

Rennerfelt Furnaces, Electric Arc, Dec 20 p 1484

Reprogle, J. Leonard:
Director of Steel Supply, Nov 8 p 1135
Duties as Director of Steel Supply, Nov 22 p 1245

Republic Iron & Steel Co.:
Earnings, Nine Months, 1917, Oct 25 p 1019
No. 5 Furnace Blown In, Aug 2 p 263
Ore Storage Yard and Bins,* Nov 22 p 1234
Takes Over Wisconsin Mine, Oct 25 p 1006
Water Softener System, Aug 2 p 242

Resales, Makers' Control of, Oct 11 p 912

Revenue Bill:
Opposition to War, July 26 p 204
Passed by Congress, Oct 4 p 852
Revision Proposed, Nov 8 p 1128

Rice, Richard H.:
Turbo Units versus Gas Engines, Sept 6 pp 542 and 583

Richardson, Charles E.:
Gas Fired Welding Furnace,* Aug 23 p 422

Riehle Brothers Testing Machine Co.:
Extensometer for Determining Elastic Limit,* Sept 13 p 593

Rifles:
Delays in Producing, Oct 4 p 849
Government's Contracts Defended, Sept 27 p 736
Production Delays, Aug 30 p 517

Rivertown Iron & Steel Co.:
Rolling Mill Sold, Aug 9 p 329

Rivertown Rolling Mill Co.:
Organized, Aug 9 p 329

Riverside Engine & Machine Co.:
Consolidated with Pittsburgh Filter Mfg. Co., July 5 p 13

Rivet Cutting Gun Co.:
Gun for Removing Open-Hearth Slag,* Oct 4 p 807
Pneumatic Device for Removing Countersunk Rivets Rapidly,* Dec 27 p 1537

Rivets:
Device for Removing Countersunk,* Dec 27 p 1537

Rivett Lathe & Grinder Co.:
Automatic Oscillating Radial Grinding Machine, Oct 18 p 927

Robertson, J. A.:
Coke Oven Gas and British Fuel Problem, July 26 p 189

Roebling's, John A., Sons Co.:
Changes in Selling Organization, July 26 p 199

Rogers, F.:
Investigation of Acid Open-Hearth Heat,* Oct 18 p 930
Phases of Acid Open-Hearth Process,* Nov 15 p 1190

Rogers, W. W.:
Phosphor Bronze Manufacture, July 26 p 230d

Roll Scale in Bessemer Process, July 12 p 80

Rolling Mills:
Accident Hazards, Dec 27 p 1547
American Zinc Products Co. to Build, Nov 29 p 1298
Carnegie Steel Co.'s Liberty Mill, Oct 25 p 1022; Nov 1 p 1048

Centennial of First in United States, Sept 6 p 548

Corrigan, McKinney New,* Nov 15 p 1180

Dixie Steel Corporation to Build in New Orleans, July 19 p 170

Economy from Motor-Driven,* Sept 13 p 592

Jones & Laughlin Plate Mill Started, Aug 2 p 291

Keystone Blooming Mill Started, July 26 p 203

McDonald Started, Oct 25 p 1006

Mansfield Sheet & Tin Plate Co.:
Operating New Sheet, Oct 18 p 937

Penn-Seaboard to Build, Dec 20 p 1506

Rating Motors, Nov 8 p 1170

Service from Motor-Driven, Oct 18 p 966

Work Stopped on Cambria Plate Mill, July 19 p 146

Youngstown Sheet & Tube, New, in Operation, Sept 13 p 612; Oct 11 p 883

Roofing, Heat Transmission Through, Dec 27 p 1526

Rope Drives:
American Practice, Nov 1 p 1065
British Practice,* Nov 1 p 1064

Rowe Calk Co.:
Purchased Diamond Chain Co., July 12 p 106

Ruder, W. E.:
Silicon in Steel Making, Aug 9 p 316

Russell, H. A.:
Farquhar Beneficial Association, Aug 16 p 366
Visualizing Promises of Material Shipments,* Oct 11 p 865

Russia:
American Machinery, July 5 p 26
Iron and Steel Output, 1916, Oct 11 p 912
Iron Ore Surplus, Oct 25 p 999
Manganese Ore Exports, 1916, July 5 p 29

Ryding, H. C.:
Vice-President Tennessee Coal, Iron & Railroad Co.,* July 5 p 52

Ryerson, Joseph T., & Son:
Detroit Warehouse,* Nov 15 p 1179
To Celebrate 75th Anniversary,* Oct 25 p 983

S

Safety:
In Steel Plants, Oct 25 p 998
Loads of Crane Chains and Slings,* Nov 22 p 1238

Progress of National Safety Council (Editorial), Sept 20 p 688

Steel Plant Electrical Provisions, Oct 25 p 992

Strauss & Buegeleisen Goggles,* Sept 6 p 535

Survey in Government Plants, Oct 4 p 812

Safety Appliances:
Exhibit in New York, Sept 20 p 665
Remington Milling Cutter Guard,* Nov 1 p 1065

Safety Congress, New York State:
Announcement of Meeting, Nov 15 p 1192

Sales Agency, British, Urged, July 26 p 236

Sales Sheets Bi-Monthly Examinations, Aug 30 p 501

Sand Blast Operations, Sept 20 pp 677 and 680

Sand, Utilizing Burned, Nov 1 p 1050

Sandell, Henry K.:
Metal Alloy, Aug 23 p 427

Sandy Hook to Be Abandoned by War Department, Aug 2 p 257

Savage Arms Co.:
Machine Gun Orders, July 5 p 32

Sawtooth Roof for Colt's Patent Fire Arms Co.,* Aug 9 p 320

Schaphorst, W. F.:
Horse Power Pull of Belts, Sept 6 p 541

Schneider, A. J.:
Group Insurance and Labor Turnover, Dec 6 p 1398

Schneider, Franklin:
Method for Producing Spur Gears, Nov 29 p 1295

Schoenert, Carl, & Sons, Inc.:
Taps and Reamers,* July 19 p 133

Scientific Materials Co.:
Hardness Measuring Instrument,* Nov 8 p 1119

Scotland:
Machinery Needs After the War, Oct 25 p 985

Scott, Frank A.:
Resigns as Chairman of War Industries Board, Nov 1 p 1056

Scrap:
Appeal to Farmers to Collect, Oct 11 p 885
Brass Reclaiming Troubles, Oct 18 p 933

British Prices, Sept 13 p 613

Bureau of Iron and Steel Scrap in Operation, Nov 22 p 1253

Congestion at Pittsburgh, Aug 9 p 309

Dealers and Fall in Prices (Editorial), Aug 23 p 438

Evasion of Government Price, Nov 22 p 1271

Iron and Steel, Nov 1 p 1106

Nickel Anodes Reclaimed by Welding,* Aug 2 p 245

Pig Iron from Steel,* Aug 30 p 485; Editorial, Aug 30 p 497; Discussion, Oct 11 p 886

Pig Iron from Steel in Great Britain, Sept 13 p 629

Prices Fixed, Iron and Steel, Nov 8 p 1154; Dec 27 p 1543

Prices, New, Explained, Dec 27 p 1546

Recovering Tin from Old Cans, Nov 22 p 1239

Secondary Metals, United States, 1916, Nov 8 p 1126

Scrap Iron Dealers:
(See American Board of Scrap Iron Dealers)

Screw Machines:
Cone Automatic Four-Spindle,* Oct 25 p 986

Screw Threads, Bicknell-Thomas Indicator,* July 5 p 19

Seaman-Sleeth Co.:
Taken Over by Pittsburgh Rolls Corporation, July 26 p 218; Aug 2 p 293

Seattle:
Industrial Growth, Nov 1 p 1052
Shipbuilding Activity, Dec 6 p 1362

Seattle Car & Foundry Co.:
Merged with Twohy Brothers Co., July 12 p 106

Selective Draft:
Canvass of Registrants, Nov 22 p 1275

New Regulations, Dec 20 p 1485

Seligman, Dr. Richard:
Electrolytic Aluminum and Carbon Consumption, July 12 p 111

Semi-Finished Materials, Agreed Prices, Oct 18 p 944; Oct 25 p 1026; Nov 15 p 1218; Dec 27 p 1543

Seneca Electric Furnace Corporation:
To Make Electric Furnaces, Aug 2 p 291

Separator, Magnetic, in Coal Pulverizing Plant, Nov 1, p 1062

Sewell Cushion Wheel Co.:
Progress, Dec 20 p 1501

Shaping Machines:
Columbia Flush Column,* Aug 2 p 243

Moller Saw Attachment,* Aug 2 p 268

Sharon Steel Hoop Co.:
Bonds to Be Retired, July 5 p 50
Improvements, July 26 p 222; Aug 9 p 317

Shartle, Charles W.:
Old Tracings Accepted for Red Cross Uses, Sept 20 p 689

Shearing Machines:
Long & Allstatter Large Gate,* Sept 27 p 739

Newbold Plate,* Dec 6 p 1362

Sheets:
Asbestos Cement, Substitute for Corrugated Iron, July 26 p 221

British Exports, July 12 p 90

Inland Steel to Resume Manufacture of Galvanized, Sept 20 p 716

Sheffield, Ala.:
Government Nitrate Plant at, Oct 25 p 998

Sheffield Coal & Iron Co.:
To Begin Operations, July 12 p 111

Shells:
Cast-Iron in Permanent Molds,* Oct 25 p 988

Cooling Forgings,* Sept 13 p 597; Oct 11 p 881

Devices to Facilitate Making,* Aug 2 p 260

Forging at Curtis Plant,* July 5 p 1; July 26 p 183

Government Contracting for Millions, Nov 15 p 1219

Shepard Electric Crane & Hoist Co.:
To Insure Employees, Oct 11 p 885

Shipbuilding:
Activities, Aug 16 p 379; Dec 6 p 1362

American International and Submarine Boat Companies to Lay Keel Jan. 1, Dec 20 p 1507

American, to Decide the War, Sept 27 p 740

Appropriation for Ships, Aug 23 p 460

At Mobile, Oct 18 p 926

British Cognizance of American, Aug 23 p 418

Canadian, July 5 p 17; Aug 23, p 428; Sept 13 p 611

Cast Steel Welded Ships, July 26 p 230b

Composite Ships Built near Mobile, Aug 9 p 323

Conflict of Opinion as to Destroyers, Aug 30 p 480

Construction of Destroyers Rushed, Sept 6 p 544

Contracts Awarded, Aug 16 p 384; Aug 23 p 462; Sept 6 p 567; Sept 20 p 716

Destroyers or Shipping? (Editorial) Sept 5 p 547

Establishment of Industry in Australia Talked of, Sept 13 p 632

Federal Shipyard Begun, Aug 23 p 441

Gloucester City Yards Taken Over by Government, Dec 27 p 1547

Goethals-Denman Controversy Ended, July 26 p 230c

Goethals' Program, July 19 p 126

Government Building at Balboa, Oct 18 p 937

Government to Withhold Information, July 5 p 32

Growth of Plants, July 12 p 78

Larger Appropriation to Be Asked for, July 12 p 86

Merchant Marine, New, Dec 6 p 1360

Merchant Ships Taken by the Government, Oct 18 p 965

Naval Employees Increasing, July 19 p 145

Naval Program, Oct 11 p 915

Navy Department Can Build 32 Ships at a Time, July 12 p 105

Navy Department Fixing Prices for Contracts, Dec 13 p 1420

Near Philadelphia,* July 26 pp 194 and 236

Newport News Shipbuilding & Dry Dock Co.'s Instruction School, Dec 20 p 1477

Orders for 700 Ships Taken Over, Aug 9 p 310

Piez, Charles A., General Manager of Government, Dec 30 p 1502

Plates and Shapes for New Destroyers, Oct 25 p 1018

Plates Must Win the War (Editorial), July 5 p 30

Progress, Dec 20 p 1565

Progress in Merchant Marine Construction, Oct 4 p 810

Pushing Construction of Destroyers and Merchant Ships, Aug 2 p 258

Rushing Yard Construction, Oct 4 p 804

Seattle Activities, Dec 6 p 1362

Speeding Ship Construction, Nov 1 p 1056; Nov 15 p 1176

Standardization of Vessels, Nov 22 p 1250

Standardized Steel for, Oct 25 p 1006

Steel Corporation to Build Yards near Mobile, Aug 9 p 345

Tonnage Under Construction, Dec 6 p 1353

Welded Cast Steel Sections, July 26 p 230b; Aug 9 p 348

Yards of American U-Boat & Arms Corporation, Aug 16 p 376

Shipments. Visualizing Promises of Material,* Oct 11 p 865

Shipping Topics:
American Merchant Marine, Nov 15 p 1174

German Ships Repaired by Electric Welds, Nov 8 p 1132

Japanese Vessels Wanted in the Atlantic, Sept 9 p 310

Plate Orders for Japan (Editorial), Aug 9 p 326

Priority Bill Legislation, July 5 p 33

Priority Bill Passed, Aug 16 p 403

Shipping Board to Require Approval of Charters, Sept 13 p 612

Shipping Outlook More Encouraging, Aug 2 p 290

Ships Carrying Munitions Under Naval Control, Dec 6 p 1401

United States to Trade Ships with France, Oct 25 p 1004

War-Emergency Act, Oct 11 p 893

Shoemaker, Lewis F.:
Abrogation of Contracts, Nov 15 p 1198

Siberia:
Blast Furnace Purchased, Aug 16 p 375

Silica Brick, Requirements, Sept 6 p 533

Silico-Manganese:
California, Aug 16 p 383

New Company to Make Carbon Electrodes and, Oct 4 p 849

Silicon in Steel Making, Aug 9 p 316

Silver Mfg. Co.:
Vertical Drilling Machine,* Aug 23 p 429

Simmons, W. H., & Co.:
Floor Tapping and Drilling Machine, Oct 25 p 990

Slag, Gun for Removing Open Hearth,* Oct 4 p 807

Sleeper & Hartley, Inc.:
Nail Die Grinding Machine,* Aug 30 p 491

Slyke, Charles E.:
How Railroad Spikes Are Made, Sept 6 p 536

Smith, C. O.:
After the War—What of Exports? July 5 p 22

Smith, J. C.:
Mechanical Safeguarding of Traveling Cranes, Dec 27 p 1527

Smith, T. L., Co.:
Concrete Mixer, Chain-Driven, Dec 20 p 1475

Smoke Prevention Convention, Oct 4 p 851

Snyder Electric Furnace Co.:
Industrial Electric Furnace Co. Acquires, July 12 p 85

Snyder, J. H.:
Economics in Pickling Steel, Aug 9 p 306

Soldier Cripples for Industry, How to Prepare,* Oct 25 p 981

Solvay Process Co.:
Buys More Land, Nov 15 p 1223

Southeastern Iron Co.:
Goshen Furnace Remodeling,* Oct 25 p 1000

Southern Ferroalloys Co.:
To Make Ferrosilicon, July 12 p 71

Southern Steel Mills Active, Dec 6 p 1355

Spain:
Iron and Manganese Ore Exports, First Half 1917, Oct 25 p 1007

Iron and Steel Plant, New, Aug 16 p 373

Steel and Ore Output, 1916, Oct 11 p 917

Steel Plant After American Plan, Aug 16 p 385

Specifications:
Billets for Forgings, July 5 p 11

Boiler Plate Changes, July 12 p 79

Carbon Tool Steel, July 5 p 11

Leather Belt, Dec 6 p 1351

Navy, for Steel Castings, July 12 p 83

Steel Tubing and Pipe, July 5 p 12

Speller, F. N.:
Roll Scale in Bessemer Process, July 12 p 80

Spelter:
Statistics for 1917, Nov 1 p 1061

United States Production and Consumption, 1916, July 19 p 170

United States Production, Third Quarter 1917, Nov 22 p 1265

Spikes, Railroad, How Made, Sept 6 p 536

Sponsel Co.:
Straightening Machine for Gun Barrels,* Nov 1 p 1047

Spooner, H. J.:
Labor Output and Fatigue, July 19 p 141

Springfield Industrial Exposition, July 5 p 22

St. Louis Coke & Chemical Co.:
To Build Blast Furnace and Coke Plants, Nov 15 p 1218

Stafford Co.:
Foundry New,* Sept 20 p 645

Stalnaker Steel Co.:
Scrap Company Organization, Aug 30 p 519

Standard Aero Corporation:
Buys Plant to Make Airplanes, Aug 30 p 489

Standard Electric Time Co.:
Factory Calling and Fire Alarm Systems,* Nov 1 p 1063

Standard Steel Castings Co.:
Expansion, Aug 16 p 405

Forging Guns, Aug 23 p 426

Standard Tin Plate Co.:
Improvements, Aug 16 p 376

Powdered Coal Plant, Air-Carried, New,* Sept 27 p 742

Stanley Works:
Employees Doing Their Bit, Nov 1 p 1069

Star and Crescent Furnace Sold to Tennessee Valley Iron & Railroad Co., Nov 22 p 1273

Stausbie, J. H.:
Analysis of Aluminum Alloys, Sept 13 p 591

Stavanger Electro-Steel Works:
Improvements, Aug 9 p 327

Stecher, Charles, Co.:
Drilling Machine for Recoil Cylinders,* Sept 13 p 595

Steel:
And Iron Dictatorship Not Likely, July 12 p 90
Australian Industry, Oct 18 p 943
Australian Shortage, July 19 p 172
Austria-Hungary's Output, 1916, July 5 p 15
Brazil's First Output, Oct 25 p 1004; Dec 6 p 1361
British Expansion, Oct 4 p 806
British Exports, May, July 12 p 86; June, Sept 13 p 613
British Exports of Commercial, Oct 25 p 1004
British Exports to France, Dec 13 p 1458
British, for Shells (Editorial), Oct 18 p 942
British Maximum Prices, July 19 p 171
British Production of Stainless Prohibited, Oct 25 p 1018
British Sections, Alterations, Aug 23 p 429
British Trade After War, Nov 29 p 1303
Canadian Production, First Half 1917, Oct 4 p 801
Carbon Analysis by Color, Sept 20 p 712
Chrome Vanadium in, Aug 2 p 266
Confusion on Costs (Editorial), Oct 11 p 889
Conservation of German Structural, Oct 11 p 875
Conserving Tools, Oct 11 p 891
Consumers' Interest in Prices, July 26 p 229
Consumers' Opinions on Fixed Prices, Oct 11 p 892; Nov 15 p 1175
Corrigan, McKinney's New Plant, Nov 15 p 1180
Cost Investigation, July 5 p 51
Costs of Making, Aug 16 p 401
Defects in Ingots, July 5 p 8
Deliveries, Regulation (Editorial), July 5 p 31
Deoxidizer, Carbohydrates, Nov 1 p 1062
Deoxidizing Basic with a Saving of Manganese, Nov 29 p 1294
Distribution Committee, Nov 15 p 1174
Dixie Steel Corporation to Build Rolling Mill in New Orleans, July 19 p 170
Dutch Plant, New, Oct 18 p 939
Electric for Timken Roller Bearings,* Aug 9 p 303
Electric, Industry in United States and Canada, Sept 20 p 662
Electric Production, Increasing July 19 p 171
Embargo, Aug 9 p 310; Dec 6 p 1395
Embargo on Automobile Alloy, Nov 22 p 1271
Exports, Future (Editorial), July 5 p 30
Exports, Revised List, July 26 p 228
Exports to Be Controlled July 15, July 12 p 92
Exports to Warring Nations, Nov 1 p 1062
Extras, New Classification, Nov 1 p 1074; Nov 8 p 1157; Nov 15 p 1218; Nov 22 p 1268
Fabricated Business, Aug 16 p 384; Sept 20 p 711; Oct 18 p 965; Nov 2 1233; Dec 20 p 1507
Fabricators to Meet in Pittsburgh, Nov 22 p 1273
Finished Material, Agreed Prices, Sept 27 p 756; Oct 25 p 1026; Nov 1 p 1074; Nov 8 p 1154; Nov 15 p 1222; Nov 22 p 1268; Dec 27 p 1542
For Airplanes, Nov 15 p 1200
For "Unessentials" (Editorial), Nov 29 p 1304
For War, To Conserve, July 5 p 56
German Dismantling of Belgian Plants, Nov 1 p 1053
German Embargo, Nov 29 p 1303
German New High-Speed, Nov 1 p 1065
German Output, May, July 19 p 147
German Prices, July 19 p 159
German Trade, Dec 13 p 1467
Government Advisers, Status of, Sept 13 p 631
Government Expenditures (Editorial), Sept 13 p 609
Government Gathering Contract Data of Industry, Nov 1 p 1053
Government Plant Accident Statistics, Dec 6 p 1359
Government Price Fixing Close at Hand, Aug 30 p 500
Hardening Carbon and Special, Oct 4 p 808
Hearing on Federal Control, Sept 27 p 744
Heating Economies, Nov 1 p 1046
High-Speed, New, Sept 20 p 655
High Speed, Without Tungsten, Aug 23 p 429
Holland to Have Its Own Plants, Nov 1 p 1063
Illinois Manufacturers Ask Information on Government Prices, Oct 4 p 833
India's Output, 1915-1916, Sept 13 p 632
Ingot Production, United States, Nine Months, 1917, Oct 11 p 891; 10 Months, Nov 15 p 1200; November, Dec 13 p 1457
Ingot Production, Youngstown District, Aug 30 p 517
Less Pig Iron But More (Editorial), Nov 15 p 1197
Magnet, Permanent, Containing Chromium, July 26 p 197
Magnetic Analysis of Products,* July 12 p 74
Makers and Government Buying, Aug 30 p 490
Making in Japan, Oct 11 p 882
Manganese in Making, Aug 2 p 239
Manganese in Ordnance, Aug 23 p 438; Nov 1 p 1069; Nov 15 p 1198
Manufacturers' View of Government's Attitude on Prices, Aug 2 p 272
Navy Specifications for Castings, July 12 p 83
New Plant in Portugal, July 19 p 146
New Plant Near Seattle, Nov 29 p 1335
Nickel in Making, Sept 13 p 594
Nitre Cake for Pickling Sheets, Dec 6 p 1395
Norway's Exports and Imports, 1916, Sept 20 p 711
Nova Scotia's Output, 1916, Sept 13 p 629
Open-Hearth Heat, Investigation of Acid,* Oct 18 p 930
Output Larger (Editorial) Aug 23 p 436
Pickling Economies, Aug 9 p 306
Pickling Effect on Strength of, Oct 18 p 964
Pickling Problems, Oct 11 p 871
Pig Iron from Scrap,* Aug 30 p 485; Editorial, Aug 30 p 497; Discussion, Oct 11 p 886
Pig Iron from Scrap in Great Britain, Sept 13 p 629
Plant Safety, Oct 25 p 998
Pomerene Bill to Control Prices, Aug 30 p 482; Oct 4 p 796; Nov 29 p 1332; Dec 6 p 1375
Power Plant Costs, Sept 27 p 775
Price Situation at Washington, Oct 4 p 854
Prices and Extras, Fixed, Sept 27 p 756; Oct 25 p 1026; Nov 1 p 1074; Nov 8 pp 1154 and 1157; Nov 15 pp 1218 and 1222; Nov 22 p 1268; Dec 27 pp 1542 and 1564
Prices and the Government, Nov 29 p 1332
Prices, Fixed, (Editorial), Sept 27 p 752; Editorial, Oct 18 p 940
Prices, Fixed, Compared with Averages of 1911-1914, Oct 4 p 833
Prices, Readjustment, July 19 p 168
Prices, Table of Fixed, Oct 25 p 1026
Prices to Remain Unchanged, Dec 13 p 1452; Dec 27 p 1547
Prices, Varying, Favored by the Government, Sept 13 p 604
Priority Orders, Sept 27 p 751
Producers' Opinions on Fixed Prices, Sept 27 pp 757 and 778
Production, First Importance, Dec 20 p 1469
Products, Working Out Prices of, Oct 4 p 832
Profits by Processes (Editorial), July 26 p 201
Progress in Electric (Editorial), July 19 p 144
Properties and Structure of Nickel,* July 12 p 67
Prospects for Demand (Editorial) Aug 30 p 497
Refractories in Industry, Aug 2 p 248
Resales and Commissions (Editorial) Oct 4 p 828
Roll Scale in Bessemer Process, July 12 p 80
Rolling from Green Ingots,* Sept 6 p 529
Russia's Output, 1916, Oct 11 p 912
Semi-Finished Materials, Agreed, Oct 18 p 944; Oct 25 p 1026; Nov 15 p 1218; Dec 27 p 1543
Silicon in, Aug 9, p 316
Southern Mills Active, Dec 6 p 1355
Spain's Output, 1916, Oct 11 p 917
Specifications on Carbon Tool, July 5 p 11
Stress Experiments, Alternating,* Oct 11 p 874
Sulphur in Castings (Editorial), July 12 p 90
Supplies and the War, Aug 23 p 457
Standardized Ship, Oct 25 p 1006
Swedish Output, 1916, Oct 25 p 991
Swedish Prices Prohibitive, Aug 30 p 489
Torsion Tests, Alternating,* July 19 p 125
Transverse Tests and Steel Structures,* Aug 2 p 240
Uranium, for Gun Linings, July 5 p 14
Use and Abuse for Aircraft,* Aug 9 p 312
Vanadium in Making,* July 19 p 134
War Helmets in an American Factory, Making,* Dec 6 p 1368
War Tasks of German Industry, July 26 p 190
Warehouse of Union Drawn Steel Co,* Oct 4 p 800
Welded Ships of Cast, July 26 p 230b
Wickwire Steel Co.'s New Plant, Description,* Nov 8 p 1109
Wild-Barfield Process, Tests, of Hardened, Aug 2 p 261
Zirconium, for German Armor Plate, Dec 6 p 1359
Steel Fabricators of the United States:
War Organization, Nov 29 p 1322; Dec 6 p 1400
Stephenson Charcoal Iron Co.:
Blast Furnace Sold, Aug 9 p 347

Stewart-Warner Speedometer Co.:
Plant Taken Over by Government, Dec 20 p 1508

Stillman, A. L.:
Cast-Iron Briquettes, Dec 6 p 1397

Stone, George C.:
Manufacture of Oxide of Zinc,* Sept 13 p 598

Stopper, Mechanically Operated Ladle,* Aug 9 p 309

Storey, Oliver:
Fence Wire Corrosion and Its Causes, Dec 13 p 1449

Straightening Machines:
Sponzel, for Gun Barrels,* Nov 1 p 1047

Strand Machinery Co.:
Die Cushion for Presses, Pneumatic,* Aug 2 p 268

Strauss & Buegeleisen:
Safety Goggle with Special Lenses,* Sept 6 p 535

Street, A. L. H.:
(See Decisions, Judicial)

Strikes:
(See Labor)

Styri, Haakon:
Electric Furnace in Norway's Iron Industry, Nov 15 p 1226b

Submarine Boat Corporation:
To Lay Keels January 1, Dec 20 p 1507

Submarine Sinkings, Dec 6 p 1353

Sulphate of Ammonia Output, United States, 1916, July 19 p 137

Sulphur in Steel Castings (Editorial), July 12 p 90

Superior Iron & Steel Co.:
Plant to Be Built, Aug 23 p 421

Superior Steel Corporation:
Earnings, Sept 27 p 779; Eight Months, Nov 1 p 1088

Supply and Machinery Dealers' Association:
(See National Supply and Machinery Dealers' Association)

Surface Combustion Co.:
Gas Fired Welding Furnace,* Aug 23 p 422

Tin Plating with Coke Oven Gas,* Dec 13 p 1418

Sweden:
Electric Smelting of Iron Ores, Sept 13 p 605

Iron and Steel Prices Prohibitive, Aug 30 p 489

Iron-Ore and Steel Output, 1916, Oct 25 p 991

Sweetser-Bainbridge Metal Alloy Corporation:
Pig Iron from Scrap,* Aug 30 p 485

Switches:
Crocker-Wheeler Reversing Alternating Current,* Aug 16 p 377

Cutler-Hammer Squirrel Cage Motor-Starting,* Dec 20 p 1477

General Electric Dead Front, Sept 6 p 533

General Electric Solenoid Operated Field,* July 26 p 193

Westinghouse Drum Reversing,* Dec 27 p 1533

Sylvester, John P.:
Iron Bars Rolled in Massachusetts Before 1800, Sept 13 p 629

Symington-Anderson Co.:
Gun Plant, Aug 16 p 376

Syracuse Smelting Works:
Afternoon Rest Periods, Aug 16 p 376

T

Tackaberry, F. H.:
Brazil's First Steel Output, Dec 6 p 1361

Tacony Ordnance Co.:
Organized, Aug 16 p 375; Aug 23 p 426

To Make Ingots for Guns, Sept 6 p 530

Talbot, Winthrop:
Alien and the Industrial Worker, Aug 23 p 430

Illiterate Worker in War Time, Aug 16 p 372

Managing Alien Workers in War Time, Aug 2 p 252

Tap Drills, Lutkin Table, Sept 6 p 531

Taps and Reamers, Schoenert,* July 19 p 133

Tariff:
Proposed Revision, Dec 13 p 1430;
Editorial, Dec 13 p 1432

Tata Iron & Steel Co.:
To Expand, Oct 18 p 970

Taxes:
Bonds and Prices, (Editorial), Sept 20 p 686

Corporation War, Aug 23 p 425

Excess Profits Board to Help Administer Revenue Act, Nov 22 p 1247

Excess Profits, New Rulings, Dec 20 p 1481

Excess Profits on Steel (Editorial) Aug 9 p 325

Excess Profits Problem, Nov 1 p 1095

Excess Profits, Unfairness on, Aug 9 p 348

Mining Industry Would Amend Law, Dec 6 p 1370

Revenue Bill Passed by Senate, Sept 13 p 626; By Both Houses, Oct 4 p 852

Revenue Bill, Proposed Revision, Nov 8 p 1128

War and New Construction, (Editorial), Sept 6 p 546

Taylor & Fenn Co.:
Milling Machine, Vertical Spindle,* Nov 22 p 1241

Taylor Society:
Meeting Announcement, Dec 6 p 1355

Washington Meeting, Dec 13 p 1414

Taylor Welder Co.:
Organized, Nov 29 p 1336

Welding, Machine for Heavy Spot, Dec 13 p 1423

Taylor-Wharton Iron & Steel Co.:
175th Anniversary,* Oct 18 p 935

Temperatures, Automatic Control of High,* Dec 20 p 1478

Tennessee Coal, Iron & Railroad Co.:
Extensions, July 19 p 170

Equipment for New Plant, Oct 18 p 932

Ryding, H. C., Vice-President,* July 5 p 52

Tennessee Valley Iron & Railroad Co.:
Buys Star and Crescent Furnace, Nov 22 p 1273

Tester, Waldo Hardness,* Sept 13 p 603

Testing Machine for Thread Gage Leads, Harris,* Oct 18 p 937

Testing Materials:
(See American Society for Testing Materials)

Tests:
Alternating Torsion,* July 19 p 125

Refractory Brick Plant, for, Nov 29 p 1293

Steel Hardened by Wild-Barfield Process, Aug 2 p 261

Transverse, and Steel Structures,* Aug 2 p 240

Texas Co.:
To Make Improvements, July 5 p 56

Texas Rolling Mill Co.:
Merged with Osage Iron & Steel Co., July 5 p 35

Thane, Bart L.:
Head of Steel Syndicate to Build Plant Near Seattle, Nov 29 p 1335

Thermostatic Metal, General Electric,* Aug 9 p 320

Thomas, Eugene P.:
Export Trade as Affected by the War, Nov 1 p 1040

Thompson, J. V.:
Assets and Liabilities, Oct 11 p 906

Thornton, Dr. W. M.:
Heat Transmission Through Roofing, Dec 27 p 1526

Thread for Pipe, U. S. Standard Recommended, July 19 p 171

Threading Machines, Landis,* Oct 4 p 801

Three Rivers Shipyard Co.:
To Build Wooden Ships, Oct 25 p 982

Tilting Table, Morris Radial Drilling Machine,* Dec 6 p 1355

Timken-Detroit Axle Co.:
Electric Steel for Roller Bearings,* Aug 9 p 303

Foundry for Economical Production,* Sept 20 p 659

Heat Treating Plant,* Oct 4 p 791

Tin:
American Iron and Steel Institute to Regulate Imports, Nov 29 p 1336

Plating with Coke Oven Gas,* Dec 13 p 1418

Recovery from Old Cans, Nov 22 p 1239

Tin Plate:
British Exports, July 12 p 90

Export Regulations, Nov 1 p 1057

Exports, 1916-1917, Oct 11 p 877

Exports, Regulations, Nov 15 p 1223

German Industry, Oct 11 p 877

Liberty Steel Co. to Build Plant, Aug 30 p 478

Output, 1917, Estimated United States, Aug 30 p 478

Present Status, July 12 p 86

Prices, Agreed, Nov 22 p 1268; Nov 29 p 1331

Production, United States, Fiscal Years 1916 and 1917, Oct 11 p 877

Production, United States, 1918, Estimated, Nov 15 p 1223

Shortage in Norway, Sept 13 p 629

Supply, 1918, Larger, Oct 11 p 917

Tinning Cast-Iron Utensils, French Method, July 26 p 221

Tioga Steel & Iron Co.:
Forgings Contract, Sept 20 p 691

Tirbutt, A. M.:
Electric Steel in United States and Canada, Sept 20 p 662

Toluol:
From City Gas, Nov 22 p 1275

Government's Needs, Dec 6 p 1374

Market, Aug 2 p 247; Sept 27 p 755

Tongue and Ear versus Eye and Hand, July 19 p 128

Tool Holders and Expanding Mandrel, Louden,* Nov 22 p 1241

Tool Steel, New High-Speed, Sept 20 p 655

Tools:
Conserving Steel, Oct 11 p 891

Device for Marking Steel,* Aug 23 p 421

Torsion Tests, Alternating,* July 19 p 125

Touceda, Enrique:
How Malleable Iron Has Improved, Oct 4 p 802

Malleable Iron and Its Uses, Discussion, Nov 8 p 1120

Townsend, C. D.:
Boilers for Utilizing Waste Heat from Melting Furnaces,* Oct 25 p 985

Tractors:
Cleveland, New,* Sept 13 p 589

Cleveland Small Industrial Caterpillar,* July 26 p 193

Cleveland, to Eliminate Switch Engine,* Dec 20 p 1475

Trade Balance, Highest (Editorial), Sept 20 p 687

Trading with the Enemy, July 26 p 199

Traffic Executive of the Allies:
Permits for Ocean Shipments, Dec 20 p 1485

Transformer, General Electric Self-Cooled,* July 12 p 73

Transportation, More, or Less Freight (Editorial), Nov 22 p 1249

Treadwell Engineering Co.:
Hot Metal Car.* Dec 6 p 1361

Tremper, H. D.:
European Advisor Federal Export Corporation,* July 5 p 52

Trucks:
Elwell-Parker Elevating Industrial,* Sept 6 p 531

Grinding as a Substitute for Milling Motor,* Aug 2 p 237

Lewis-Shepard Industrial Lift,* Oct 18 p 927; Dec 27 p 1526

Military Tested, Oct 25 p 993

Motor, Government Contracts, July 26 p 226

Orenstein-Arthur Koppel Storage Battery,* July 12 p 73

Trumbull Steel Co.:
Additions, Nov 22, p 1233

Buys Coal Mines, Sept 27 p 741

Trussed Concrete Steel Co.:
Buildings for Cantons, July 5 p 21

Tschischewsky, Prof. N.:
Case Hardening by Boron,* July 5 p 15

Tubes:
Boiler Specifications, July 5 p 12

Defects in Brass,* Aug 2 p 259

Engelhard Protective for Thermocouples, Nov 1 p 1063

National Tube Co.'s New Discount Cards, Nov 8 p 1157

Tungsten, High-Speed Steel Without, Aug 23 p 429

Turbines:
Government Plant at Buffalo, Oct 25 p 1001

Standardization of Specifications for Small, Dec 13 p 1421

Steam for Boiler Feed Pumps, Aug 9 p 318

Westinghouse Cast-Steel Motor Frames for Battleship,* Dec 6 p 1365

Turbo Units versus Gas Engines, Sept 6 pp 542 and 583

Turnbull, Robert:
Electric Pig Iron in War Time, Oct 11 p 886

Twohy Brothers Co.:
Merged with Seattle Car & Foundry Co., July 12 p 106

U

Unger, Dr. J. S.:
Magnetic Analysis of Steel Products, Discussion, July 12 p 74

Union Drawn Steel Co.:
Gary Plant in Partial Operation,* Sept 27 p 733

Steel Storage Warehouse,* Oct 4 p 800

Union Smelting & Refining Co.:
Plant, New, Aug 16 p 363

Unions Organizing to Cause Strike is Illegal, Dec 13 p 1436

United Alloy Steel Corporation:
Earnings, Aug 16 p 398

Heat-Treating Plant,* Dec 6 p 1347

Patriotic Council, Nov 1 p 1104

Service from Electric Mills, Oct 18 p 966

United Engineering & Foundry Co.:
Patriotic Appeal, Nov 1 p 1089

United Publishers Corporation:
Purchases Building, Oct 11 p 869

United States Steel Corporation:
Activity at Ojibway, Sept 20 p 681

Forging Plant to Be Built at Gary, Dec 6 p 1390

Profits (Editorial), Nov 8 p 1131

Quarterly Statement, Aug 2 p 269; Nov 1 p 1088

Service Flag, Dec 20 p 1506

Shipbuilding Plant at Mobile, Aug 9 p 345; Nov 29 p 1333

To Build Ships, July 26 p 230a

Unfilled Orders, July 12 p 90; Aug 16 p 365; Sept 13 p 613; Oct 18 p 943; Nov 15 p 1201; Dec 13 p 1434

Wage Advance, Sept 27 p 751

Uranium:
Improving Cast Iron with, Dec 13 p 1413

Steel, for Gun Linings, July 5 p 14

V

Valley Iron Co.:
Organized, Aug 30 p 501

Valley Mold & Iron Co.:
Plant Ready to Start, July 26 p 221

Valves:
Iverson, for Mesta Blowing Engines,* Sept 27 p 731

Vanadium:
Chrome, In Steel, Aug 2 p 266

In Steel Making,* July 19 p 134

Vial, F. K.:
Mechanics of the Chilled Iron Wheel, July 19 p 140

Virginia:
Manganese Ores, Oct 11 p 884; Nov 29 p 1299

Virginia Iron, Coal & Coke Co.:
Bristol Furnace Sold, Nov 8 p 1135

Vise for Milling Machines, Cleveland,* Dec 6 p 1353

Vocational Training, Broader Scope for, Sept 13 p 590

W

Wage Dispensing Scheme, Aug 16 p 369

Wagner Castings Co.:
Takes Over Decatur Foundry Co., Nov 8 p 1153

Waldo, Leonard:
Hardness Tester,* Sept 13 p 603

Wales, Samuel S.:
Modern Electric Motors in Steel Mills,* Nov 1 pp 1045 and 1105

Walworth Mfg Co.:
Purchases Kewanee Plant of National Tube Co., July 12 p 113; Aug 9 p 341

War:
Adjustment of Labor to Needs, Dec 6 p 1364

Advisory Committee of Chemists, Nov 22 p 1253

American Foundrymen's War Service Board, Oct 4 p 817

American Iron and Steel Institute to Regulate Tin Imports, Nov 29 p 1336

Appropriations, Oct 11 p 887; Dec 13 p 1417

Appropriations, Hearings on Deficiency, July 19 p 165

Appropriation of \$5,000,000 Asked by Congress, Aug 2 p 244

Appropriations, Warning as to Large, Sept 20 p 715

Automobile Truck Supply Ample, July 5 p 21

Aviation Bill Passed, July 26 p 230a

Aviation Service, Men Wanted, Nov 29 p 1336; Dec 13 p 1413

Baltimore Merchants' and Manufacturers' Association Organizing for Work, Dec 27 p 1566

Bids on Projectiles, Aug 23 p 439

British Supplies, July 5 p 17

British Trade After, Nov 29 p 1303

British Trade Union Rules After, Aug 9 p 323

Bureau of Manufacturing Industries to be Organized, Nov 22 p 1231

Business Convention Announcement, Sept 6 p 569; Sept 13 p 610

Buying Commission, Aug 9 p 345

Call for Aviation Service, Nov 29 p 1336

Centralization of Administrative Authority Advocated, Dec 13 p 1414

Changes in Industry, Dec 6 p 1402

Christmas Card Money for Relief, Nov 8 p 1112

Commandeering Machinery (Editorial), Aug 9 p 325

Conventions and (Editorial), Oct 11 p 890

Council Created, Dec 20 p 1508

Council of National Defense Accomplishments, Aug 23 p 419

Country's Organization (Editorial), Dec 13 p 1432

Draft in Munitions Centers (Editorial), Aug 9 p 324

Economic Changes (Editorial), Nov 22 p 1248

Economics, After Effects of (Editorial), Aug 2 p 271

Embargo on Exports, Aug 30 p 520

Enlistments from Munitions Plants Stopped in New England, Dec 20 p 1484

Exemption Questions, Aug 2 p 293

Exemptions of Employees to Draft, Aug 9 p 350; Sept 20 p 685

Exemptions Needed for Deliveries (Editorial), Sept 27 p 754

Expenditures, Nov 22 p 1246

Expenditures Proposed, Sept 13 p 630

Exports After, July 5 p 22

Federal Control of Steel, Hearing, Sept 27 p 744

France Aids Aviation, Aug 9 p 326

German Imports and Trade After, Oct 18 p 939

German Profits, Aug 23 p 428

German Steel Industry, Tasks, July 26 p 190

Gisholt Machine Co. Will Do Full Share, Aug 23 p 428

Government Control of Industries, July 5 p 27

Government Expenditures Stupendous, Sept 6 p 536

Government's Conservative Policy, Dec 13 p 1468

Guns for Army, Aug 9 p 317

Illiterate Worker and, Aug 16 p 372

Import Licenses, Terms of, Dec 6 p 1367

Industrial Exemptions, Aug 9 p 350; Sept 20 p 685

Labor and the Draft, Aug 23 p 441

Labor Conditions During (Editorial), Aug 2 p 271

Lesson for Industry (Editorial), Sept 20 p 687

Limitations Imposed on Advisory Committeemen, Oct 4 pp 833 and 854

Loans, Aug 23 p 424

Making Helmets,* Dec 6 p 1368

Managing Aliens, Aug 2 p 252

Manufacturers to Organize by Industries, Dec 6 p 1371

Manufacturer's View of Government's Attitude on Steel Prices, Aug 2 p 272

New England Foundry Activity,* Sept 20 pp 650 and 724

No War After (Editorial), Sept 6 p 546

Non-Essential Industry Problem, Nov 29 p 1327

Ordnance and Munitions Investigations, Defective, Sept 13 p 633

Patented Inventions, To Keep Secret, July 5 p 47

Peace Business, And (Editorial), Nov 1 p 1071

Post-War Business Relations with Germany, July 12 p 83

Price Fixing Close at Hand, Government Steel, Aug 30 p 500

Prices, Further Government Control, Favored, Sept 20 p 709

Problems Discussed with Editors of Business Press, Dec 20 p 1503

Prospects of Greater Federal Control, Dec 27 p 1540

Selective Exemption of Workers (Editorial), Aug 2 p 270

Selective Service Regulations, New, Dec 20 p 1485

Service Committee of Fabricating Trade, Nov 8 p 1170

Shells, Contracts for Millions, Nov 15 p 1219

Skilled Labor Needed, Nov 15 p 1189

Skilled Men Drafted for Duty, Nov 8 pp 1118 and 1170

Soldier Cripples for Industry,* How to Prepare, Oct 25 p 981

Speeding Shipments, Dec 6 p 1400

Spirit of People (Editorial), Aug 16 p 382

Status of Government Advisers, Sept 13 p 631

Steel Prices Fixed (Editorial), Sept 27 p 752

Steel Prices Fixed by Agreement, Sept 27 p 756

Steel Production First Importance, Dec 20, p 1469

Steel Supplies, And, Aug 23 p 457

Steel, to Conserve for, July 5 p 56

Taxes, Aug 23 p 424

Taxes and New Construction (Editorial), Sept 6 p 546

Technical Men Needed, Nov 1 p 1052

Tonnage Sunk by Submarines, Dec 6 p 1353

Trading with the Enemy, July 26 p 199

Unusual Methods (Editorial), Aug 16 p 382

Wealth, and (Editorial), Sept 6 p 547

War Department:

- American Arsenal to be Established in France, Dec 6 p 1377
- Inspectors of Ordnance Equipment Wanted, Sept 13 p 600
- Ordnance Bureau, Colossal Task, Sept 13 p 606
- Ordnance Department, Urgent Needs of, Sept 6 p 541
- Ordnance Depot in France, \$100,000,000 for, Oct 25 p 1023
- Proving Ground in Illinois, Aug 9 p 323
- To Abandon Sandy Hook Proving Ground, Aug 2 p 257
- To Finance Airplane Manufacturers, Aug 2 p 286

War Industries Board:

- Called Inadequate, Sept 20 p 715
- New Buyer, Aug 2 p 274
- Proposes Reasonable Profits, Aug 16 p 364
- Purchasing System, Sept 20 p 707
- Scott, F. A., Resigns, Nov 1 p 1056
- Steel Prices to Remain Unchanged, Dec 27 p 1547

War Trade Board:

- Appointed, Oct 18 p 969
- Ward's, Edgar T., Sons Co.: Consolidation, Dec 20 p 1470
- Warehouse Prices Fixed, Nov 15 p 1223
- Warehouse, Ryerson Detroit,* Nov 15 p 1179
- Washer, Locknut and Bolt Combination, Permanent Products Co., Dec 13 p 1413

Washington Navy Yard:

- New Machine Shop, Nov 8 p 1149
- Shops to Cost \$7,500,000, July 26 p 198

Waste Material Dealers:

- (See National Association of Waste Material Dealers)

Water Softener System in Republic Iron & Steel Plant, Aug 2 p 242

Watson-Stillman Co.:

- Bending Machines for Ship Material,* July 5 p 19
- Crankpin Forging Press,* Nov 8 p 1169

Waukegan Machine Tool Co.:

- Floor Drill,* Sept 27 p 739

Waukesha Motor Co.:

- First Liberty Motor Delivered in Record Time, Oct 18 p 967
- Webb-Pomerene Bill Opens Way for Foreign Trade, Dec 20 p 1476

Weber Chimney Co.:

- World's Tallest Chimney Erected in Japan, July 5 p 14

Weigel Machine Tool Co.:

- Upright Drilling Machine, 25-in.,* Oct 4 p 805

Welding:

- Cast Steel Ship Sections, July 26 p 230b; Aug 9 p 348
- Gas Fired Furnace,* Aug 23 p 422
- Influence of Current on Arc,* Dec 6 p 1398
- Oxy-Acetylene Cast Iron, Dec 27 p 1538
- Oxy-Acetylene Joints, Strength, Dec 20 p 1471
- Prest-O-Lite Process, Ten Miles of Pipe,* July 12 p 85
- Repairing German Ships by Arc, Nov 8 p 1132
- Scrap Nickel Anodes Reclaimed by,* Aug 2 p 245
- Taylor Machine for Heavy Spot,* Dec 13 p 1423

Wellman-Seaver-Morgan Co.:

- Floating Crane for Norfolk Navy Yard,* Sept 27 p 734

Western Electric Co.:

- Organization, Dec 13 pp 1415 and 1417

Western Screw & Lock Nut Co.:

- New Plant, July 19 p 141

Westinghouse Electric & Mfg. Co.:

- Cast-Steel Motor Frames for Battleship Turbines,* Dec 6 p 1365
- Liberty Loan Drive, Nov 8 p 1113
- Foundry Course, Aug 30 p 481
- Switch for Machine Tools, Drum Reversing,* Dec 27 p 1533

Wharton, Oden H.:

- President Crucible Steel Co. of America,* July 5 p 52

Wheel Manufacturers' War Service Committee:

- Organized, Nov 1 p 1089

Wheels, Mechanics of Chilled Iron, July 19 p 140

Whitaker-Glessner Co.:

- Blast Furnace Description, Nov 29 p 1298
- Employees' Restaurant,* Aug 23 p 433
- Furnace to Blow In, Aug 23 p 459
- Sheet Mills, Contracts, Aug 16 p 385

White, A. E.:

- Investigation Leading to Specifications for Brass Condenser Tubes, Aug 9 p 318

White Heat Products Co.:

- Grinding Wheel for Munitions Plants, Aug 9 p 317

White, S. J. H.:

- Methods to Improve Plant Fuel Economy, Dec 27 p 1528

Whitman-Bull Tractor Co.:

- Organized, July 12 p 113

Wickwire Steel Co.:

- Plant Description,* Nov 8 p 1109

Wilbride Co.:

- Amalgam Cement for Firebricks, Oct 4 p 803

Wilcox, F. H.:

- Dangers of Blast-Furnace Break-outs, Nov 29 p 1300

Wild-Barfield Process of Steel Hardening, Tests of, Aug 2 p 261

Wilkes Rolling Mill:

- Rolling Iron Sheet Bars, Sept 27 p 733

Willys-Overland Co.:

- Electric Oven for Baking Cores,* Sept 20 p 652

Wilmarth & Morman Co.:

- Grinding Machine, Automatic Feed, Tool,* Dec 27 p 1527

Wilputte Coke Oven Corporation:

- Algoma Steel Corporation Contract, Nov 29 p 1309
- Improvements, Aug 16 p 371

Wilson, David H.:

- Repairing German Ships by Electric Welds, Nov 8 p 1132

Wire Drawing:

- British, Aug 9 p 308
- Morgan Motor-Driven Machine,* Aug 16 p 377

Wire Fence, Corrosion and Its Causes, Dec 13 p 1449

Wire Nail Trade and Price Regulation, July 19 p 146

Wisconsin:

- Aliens May Recover Compensation, Dec 6 p 1352
- Compensation Law, Sept 13 p 607

Wisconsin Gun Co.:

- Organized to Build Ordnance Plant, July 19 p 137
- Plant Contract, Aug 2 p 291

Wolff, E. B.:

- Failure of Boiler Plates in Service,* Oct. 25 p 994

Woltz, J. M.:

- Accident Hazards of Sheet Mills, Dec 27 p 1547

Women:

- Employees in British Steel Works,* July 26 p 196
- Employees in United States, Aug 2 p 261
- Employees in Youngstown Plants, July 19 p 147
- In German Munitions Plants, Dec 6 p 1393
- In Steel Trades, Sept 27 p 730
- To Be Employed in Portsmouth Navy Yard, Nov 22 p 1253
- Replace Men in Burroughs Plant, Dec 20 p 1477

Wood, R. A.:

- Properties of Brasses, Nov 1 p 1054

Worth Brothers Co.:

- New Blast Furnace, Aug 30 p 499

Wrought Iron Range Co.:

- Employees Transfer Christmas Bonus to Y. M. C. A. War Fund, Dec 6 p 1366

Y

Youngstown Sheet & Tube Co.:

- Bar Mill, New, Sept 13 p 612; Description,* Oct 11 p 883
- Liberty Bond Campaign, Nov 15 p 1193
- New Mill Operating, Sept 18 p 612
- Opens Washington Office, Nov 1 p 1061
- Plant Accidents, Oct 25 p 998
- Rack for Hammers, Cutters and Sledges,* Dec 13 p 1413
- Sales Conference, Dec 14 p 1458
- To Enlarge Plant, July 19 p 172

Youngstown Prosperity, July 19 p 133

Z

Zinc:

- Manufacture of Oxide of,* Sept 13 p 598

Zircon, Demand for Brazilian, Aug 23 p 453

Zirconium Steel for German Armor Plate, Dec 6 p 1359

